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MACHINE TOOLS MACHINES-OUTILS

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METALLEXPORT

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MACHINE TOOLS

MACHINES OUTILS



METAEXPORT

ADDRESS : WARSZAWA, P. O. BOX 442. CABLES : METALEX-WARSZAWA

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| 1 | LATHES
TOURS |
| 2 | ROLL TURNING LATHES
TOURS POUR CYLINDRES |
| 3 | VERTICAL BORING
AND TURNING MILLS
TOURS VERTICAUX |
| 4 | RAILWAY SHOP LATHES
TOURS POUR ATELIERS DE CONS-
TRUCTION DE CHEMINS DE FER |
| 5 | MILLING MACHINES
FRAISEUSES |
| 6 | DRILLING MACHINES
PERCEUSES |
| 7 | SHAPING AND PLANING MACHINES
LIMEUSES ET RABOTEUSES |
| 8 | GRINDING MACHINES
RECTIFIEUSES |
| 9 | COLD METAL SAWING MACHINES
SCIES A FROID POUR METAUX |
| 10 | CENTERING MACHINES
MACHINES DE CENTRAGE |
| 11 | THREAD CUTTING MACHINES
MACHINES A FILETER |
| 12 | HAMMERS
MARTEAUX |
| 13 | PRESSES
PRESSES |
| 14 | SHEARING MACHINES
MACHINES A CISAILLER |
| 15 | WOOD-WORKING MACHINES
MACHINES A BOIS |

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This Catalogue contains some photographs and short technical data concerning the most popular types of metal and wood working machine tools, hammers and presses included in our export programme for 1955-56.

Metric figures are minutely accurate, British ones approximate only.

All data are given without obligation and may be altered in consequence of continuous progress in our machine tool industry.

Detailed leaflets will be sent on request.

Ce Catalogue présente quelques photographies et brèves caractéristiques techniques des types les plus courants des machines-outils pour métaux et pour bois, marteaux et presses, figurant dans notre programme d'exportation pour 1955-56.

Les caractéristiques indiquées en unités métriques sont rigoureusement exactes, celles en unités britanniques ne sont qu'approximatives.

Toutes les caractéristiques sont données sans engagement, et peuvent être modifiées du fait du progrès continu de notre industrie des machines-outils.

Des notices détaillées seront envoyées sur demande.

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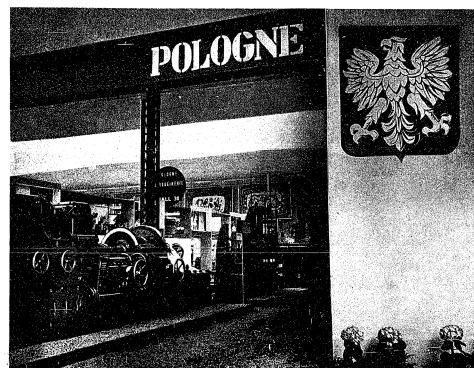
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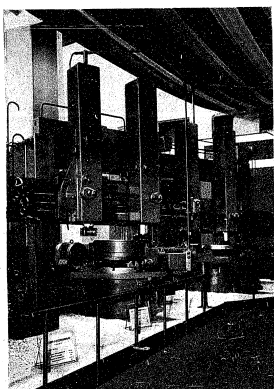
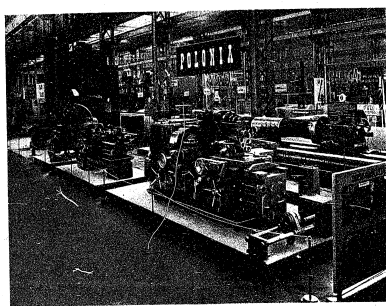
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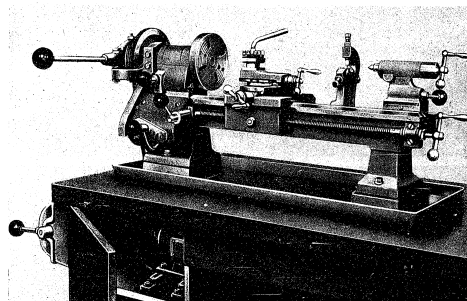
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LATHES

TOURS

M I T A L E X P O R T - W A R S Z A W A

11



BENCH LATHE

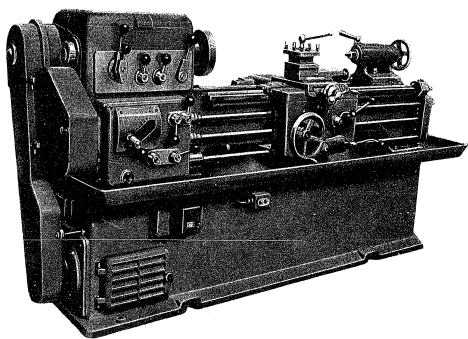
TYPE TSA - 16

TOUR D'ÉTABLI

	British	Metric	
Swing over bed	in. 6 1/4	mm. 160	Diamètre max. admissible au-dessus du banc
Swing over saddle	in. 2	mm. 50	Diamètre max. admissible au-dessus du chariot
Distance between centres	in. 15 3/4	mm. 400	Entre-poinçons
Spindle bore	in. 5/8	mm. 17	Réglage de broche
Spindle taper		Morse n° 1	Broche, cône Morse
4 spindle speeds		r.p.m. 340 - 1160 t/m.	4 vitesses de broche
Power required	H.P. 0.5	KW. 0.37	Puissance nécessaire
Approx. net weight	lb. 88	kg. 40	Poids net approx.
Approx. gross weight	lb. 125	kg. 60	Poids brut approx.
Approx. shipping volume	cu.ft. 31.8	m³ 0.9	Vol. approx. d'expédition

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METALEXPORT - WARSZAWA
ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX WARSZAWA



ENGINE LATHE

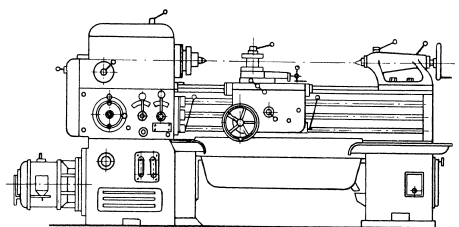
TYPE TSS - 150

TOUR MÉCANIQUE

	British	Metric	
Swing over bed	in. 11 3/4	mm. 300	Diamètre max. admis au-dessus du banc
Swing over saddle	in. 8 1/4	mm. 210	Diamètre max. admis au-dessus du chariot
Distance between centres	in. 23 5/8-39 3/8	mm. 600-1000	Entre-pointes
Spindle bore	in. 1 3/16	mm. 30	Alésage de broche
18 spindle speeds	in./r. 0.0177-0.17635	r.p.m. 23-1300	18 vitesses de broche
46 standard longitudinal feeds	in./r. 0.0078-0.0110	mm/r. 0.48-4.48	46 avances longitudinales standard
32 fine longitudinal feeds	in./r. 0.0049-0.0078	mm/r. 0.08-0.38	32 avances longitudinales fines
Cross feeds	in./r. 0.0049-0.0078	mm/r. 0.08-0.38	Avances transversales
Power required	H.P. 2.5	kW. 2.5	Puissance nécessaire
Approx. net weight	lb. 3250-3860	kg. 1150-1300	Poids net approx.
Approx. gross weight	lb. 3280-3890	kg. 1400-1800	Poids brut approx.
Approx. shipping volume	cu.ft. 109.5-137.8	m ³ 3.1-3.9	Vol. approx. d'expédition

METALEXPORT - WARSZAWA

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HIGH SPEED
ENGINE LATHE

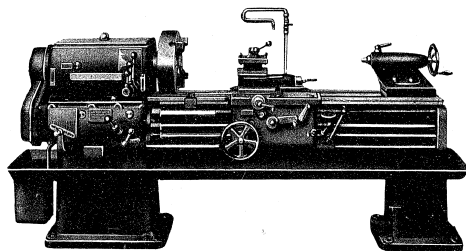
TYPE TNS - 400

TOUR MÉCANIQUE
RAPIDE

	British	Metric	
Swing over bed	in. 13 3/4	mm. 400	Diamètre max. admis au-dessus du banc
Swing over saddle	in. 8 7/8	mm. 225	Diamètre max. admis au-dessus du chariot
Distance between centres	in. 23 1/8-39 3/8	mm. 750-1000	Entre-pointes
Spindle bore	in. 5/8	mm. 16	Alésage de broche
18 spindle speeds, I	in./r. 0.0177-0.17635	r.p.m. 23-1300	18 vitesses de broche I
— II	in./r. 0.0049-0.0078	r.p.m. 28-1400	— II
Longitudinal feeds	in./r. 0.0049-0.0078	mm/r. 0.125-1.4	Avances longitudinales
Cross feeds	in./r. 0.0049-0.0078	mm/r. 0.125-1.4	Avances transversales
Power required	H.P. 7.5	kW. 5.5	Puissance nécessaire
Approx. net weight	lb. 4400-5940	kg. 2000-2700	Poids net approx.
Approx. gross weight	lb. 5500-7380	kg. 2500-3600	Poids brut approx.
Approx. shipping volume	cu.ft. 134.3-212	m ³ 3.8-6	Vol. approx. d'expédition

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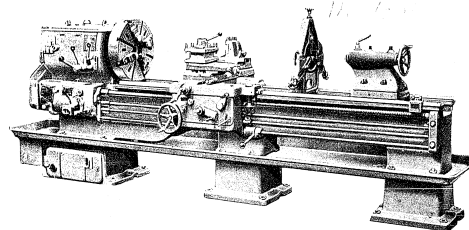
HIGH SPEED
ENGINE LATHE

TYPE TR - 45

TOUR MÉCANIQUE
RAPIDE

	British	Metric	
Swing over bed	in. 17 3/4	mm. 450	Diamètre max. admis au-dessus du banc
Swing over saddle	in. 11 3/4	mm. 300	Diamètre max. admis au-dessus du chariot
Distance between centres	in. 39 3/8-59-79 3/4	mm. 1000-1500-2000	Entre-pointes
Spindle bore	in. 2 1/8	mm. 52	Alésage de broche
18 spindle speeds	r.p.m. 19-1960	r.p.m. 62	18 vitesses de broche
55 longitudinal feeds	in./r. 0.00314-0.0894	mm/r. 0.08-2.3	55 avances longitudinales
55 cross feeds	in./r. 0.00157-0.0492	mm/r. 0.04-1.25	55 avances transversales
Power required	H.P. 2.2	KW 1.6	Puissance nécessaire
Approx. net weight	lb. 4070-4400-4850	kg. 1850-2000-2200	Poids net approx.
Approx. gross weight	lb. 5170-5500-5950	kg. 2350-2500-2700	Poids brut approx.
Approx. shipping volume	cu.ft. 177-318	m³ 5-9	Vol. approx. d'expédition

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HIGH SPEED
ENGINE LATHE

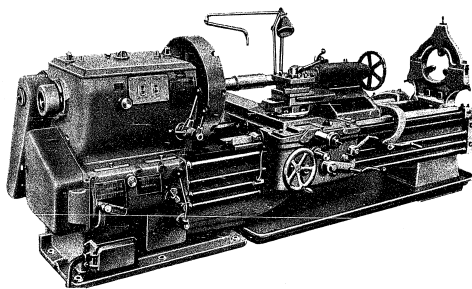
TYPE TR - 55

TOUR
MÉCANIQUE
RAPIDE

	British	Metric	
Swing over bed	in. 21 1/4	mm. 540	Diamètre max. admis au-dessus du banc
Swing over saddle	in. 12 5/8	mm. 320	Diamètre max. admis au-dessus du chariot
Distance between centres	in. 39 3/8-157 1/2	mm. 1000-4000	Entre-pointes
Spindle bore	in. 2 1/8	mm. 52	Alésage de broche
18 spindle speeds	r.p.m. 12-600	r.p.m. 62	18 vitesses de broche
55 longitudinal feeds	in./r. 0.00334-0.1063	mm/r. 0.08-2.7	55 avances longitudinales
55 cross feeds	in./r. 0.00176-0.0531	mm/r. 0.04-1.35	55 avances transversales
Power required	H.P. 10.2	KW 7.5	Puissance nécessaire
Approx. net weight	lb. 4940-5450	kg. 2250-2500	Poids net approx.
Approx. gross weight	lb. 6450-6950	kg. 2920-3150	Poids brut approx.
Approx. shipping volume	cu.ft. 402-404	m³ 11.4-11.7	Vol. approx. d'expédition

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HIGH SPEED
ENGINE LATHE

TYPE TR - 70

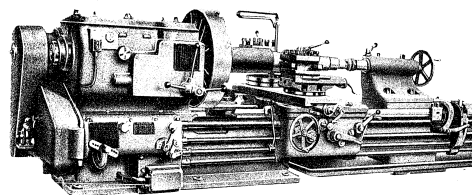
TOUR
MÉCANIQUE
RAPIDE

	British	Metric	
Swing over bed	in. 36 3/4	mm. 680	Diamètre max. admis au-dessus du banc
Swing over saddle	in. 16 1/2	mm. 420	Diamètre max. admis au-dessus du chariot
Distance between centres	in. 59 1/8-236 1/4	mm. 1500-6000	Entre-pointes
Splindle bore	in. 3 7/8	mm. 72	Alésage de broche
18 spindle speeds	r.p.m. 12-600		18 vitesses de broche
55 longitudinal feeds	in./r. 0.00119-0.12747	mm/r. 0.13-4	55 avances longitudinales
55 cross feeds	in./r. 0.00236-0.07674	mm/r. 0.063-2	55 avances transversales
Power required	H.P. 15	kW. 11	Puissance nécessaire
Approx. net weight	lb. 10400-14380	kg. 4700-6500	Poids net approx.
Approx. gross weight	lb. 13850-19000	kg. 6200-8600	Poids brut approx.
Approx. shipping volume	cu.ft. 360-430	m ³ 10.2-12.4	Vol. approx. d'expédition

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METALEXPORT - WARSZAWA

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HIGH SPEED
ENGINE LATHE

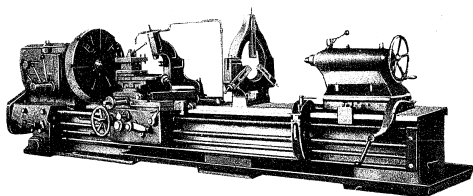
TYPE TR - 90

TOUR
MÉCANIQUE
RAPIDE

| | British | Metric | |
|--------------------------|------------------------|----------------------|--|
| Swing over bed | in. 33 1/2 | mm. 800 | Diamètre max. admis au-dessus du banc |
| Swing over saddle | in. 22 1/2 | mm. 570 | Diamètre max. admis au-dessus du chariot |
| Distance between centres | in. 59 1/8-236 1/4 | mm. 1500-6000 | Entre-pointes |
| Splindle bore | in. 4 1/8 | mm. 105 | Alésage de broche |
| 18 spindle speeds | r.p.m. 7.5-380 | | 18 vitesses de broche |
| 55 longitudinal feeds | in./r. 0.01573-0.12747 | mm/r. 0.13-4 | 55 avances longitudinales |
| 55 cross feeds | in./r. 0.00355-0.07674 | mm/r. 0.063-2 | 55 avances transversales |
| Power required | H.P. 20 | kW. 15 | Puissance nécessaire |
| Approx. net weight | lb. 17600-22100 | kg. 8000-10000 | Poids net approx. |
| Approx. gross weight | lb. 22100-33000 | kg. 10000-15000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 706-1342 | m ³ 20-38 | Vol. approx. d'expédition |

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CABLES : METALEX - WARSZAWA



**HIGH SPEED
ENGINE LATHE**

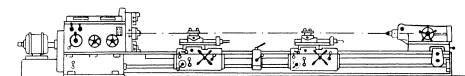
TYPE TR - 100

**TOUR
MÉCANIQUE
RAPIDE**

| | British | Metric | |
|--------------------------|------------------------|-----------------|--|
| Swing over bed | in. 39 3/8 | mm. 1000 | Diamètre max. admis au-dessus du banc |
| Swing over saddle | in. 38 3/4 | mm. 980 | Diamètre max. admis au-dessus du chariot |
| Distance between centres | in. 79 3/4-836 1/4 | mm. 2020-2090 | Entre-poinçons |
| Spindle bore | in. 4 1/8 | mm. 105 | Alésage de broche |
| 18 spindle speeds | r.p.m. 7.5-380 | 1/m. | 18 vitesses de broche |
| 55 longitudinal feeds | in./r. 0.01573-0.15747 | mm/t. 0.13-4 | 55 avances longitudinales |
| 55 cross feeds | in./r. 0.00853-0.07874 | mm/t. 0.065-4 | 55 avances transversales |
| Power required | H.P. 20 | kW. 15 | Puissance nécessaire |
| Approx. net weight | lb. 18000-28000 | kg. 8200-12700 | Poids net approx. |
| Approx. gross weight | lb. 22400-34900 | kg. 10200-15700 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 776-1410 | m³ 22-40 | Vol. approx. d'expédition |

METALEXPORT, WARSZAWA

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**HEAVY DUTY
ENGINE LATHE**

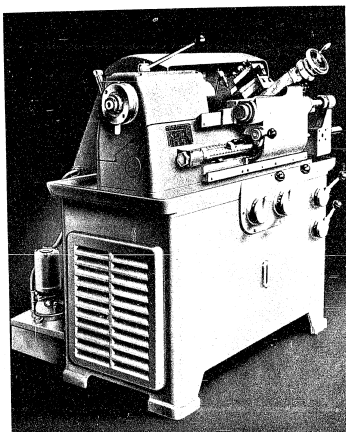
TYPE TCA

**TOUR MÉCANIQUE
POUR GROS
TRAVAUX**

| | British | Metric | |
|--|------------------------|-----------------|---|
| Swing over bed | in. 39 3/8 | mm. 1000 | Diamètre max. admis au-dessus du banc |
| Swing over saddle | in. 29 1/2 | mm. 750 | Diamètre max. admis au-dessus du chariot |
| Distance between centres | in. 118 1/8-590 5/8 | mm. 3000-15000 | Entre-poinçons |
| Spindle bore | in. 4 3/8 | mm. 110 | Alésage de broche |
| Max. weight of workpiece held in centres | lb. 38400 | kg. 16000 | Poids max. de la pièce à usiner, maintenue entre poinçons |
| 24 spindle speeds | r.p.m. 11.12-324 | 1/m. | 24 vitesses de broche |
| 60 longitudinal feeds | in./r. 0.00307-1.27474 | mm/t. 0.18-40 | 60 avances longitudinales |
| 40 cross feeds | in./r. 0.00354-0.35237 | mm/t. 0.28-80 | 40 avances transversales |
| 50 minute-feeds | in./min. 12-12 5/8 | mm/min. 12-320 | 50 avances à la minute |
| Power required | H.P. 53.5 | kW. 39.5 | Puissance nécessaire |
| Approx. net weight | lb. 36300-47700 | kg. 16500-21600 | Poids net approx. |
| Approx. gross weight | lb. 42500-53800 | kg. 19300-24400 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 885-3980 | m³ 25-67 | Vol. approx. d'expédition |

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METALEXPORT - WARSZAWA
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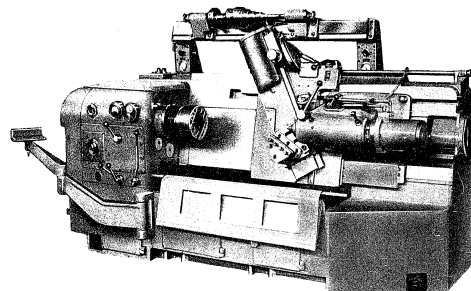
**HYDRAULIC
HIGH SPEED
PRODUCTION
LATHE**

TYPE TPC - 24

**TOUR DE
PRODUCTION
HYDRAULIQUE
RAPIDE**

| | British | Metric | |
|-----------------------------------|------------------------|-----------------------|--|
| Max. turning dia. steel | in. 3 1/8 | mm. 80 | Dia. max. de tournage
acier |
| Max. turning dia. light
metals | in. 6 1/4 | mm. 160 | Dia. max. de tournage
métaux légers |
| Distance between centres | in. 15 3/4 | mm. 400 | Entre-pointes |
| 8 spindle speeds | in./r. 0.00471-0.00903 | r.p.m. 770-3770 (1/m) | 8 vitesses de broche |
| Feeds | | mm/r. 0.12/1.5 | Avances |
| Power required | H.P. 5.3 | kW. 3.9 | Puissance nécessaire |
| Approx. net weigh | lb. 1670 | kg. 760 | Poids net approx. |
| Approx. gross weight | lb. 2050 | kg. 1000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 98 | m ³ 2.8 | Vol. approx. d'expédition |

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**ROUGH TURNING
LATHE WITH
HYDRAULIC
COPYING DEVICE**

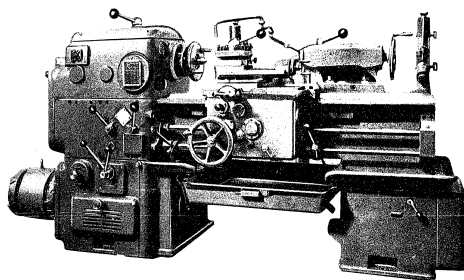
TYPE TGA - 18

**TOUR DE
DÉGROSSISSAGE
AVEC DISPOSITIF
REPRODUCTEUR
HYDRAULIQUE**

| | British | Metric | |
|--------------------------|------------------------|-----------------------|---------------------------|
| Turning dia. max. | in. 7 1/8 | mm. 180 | Diamètre max. de tournage |
| — — min. | in. 1 5/8 | mm. 40 | Diamètre min. de tournage |
| Distance between centres | in. 39 3/8 | mm. 1000 | Entre-pointes |
| 12 spindle speeds | | r.p.m. 118-1500 (1/m) | 12 vitesses de broche |
| 11 feeds | in./r. 0.00489-0.00903 | mm/r. 0.15-1.5 | 11 avances |
| Power required | H.P. 29.4 | kW. 21.6 | Puissance nécessaire |
| Approx. net weight | lb. 13100 | kg. 5900 | Poids net approx. |
| Approx. gross weight | lb. 15850 | kg. 7100 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 318 | m ³ 9 | Vol. approx. d'expédition |

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HIGH SPEED
PRODUCTION
LATHE

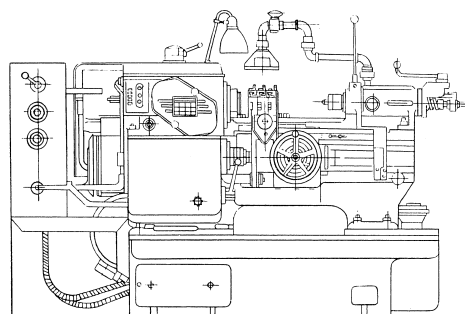
TYPE TPS - 400

TOUR DE
PRODUCTION
RAPIDE

| | British | Metric | |
|-------------------------------|-----------------------------|-----------------|--|
| Swing over bed | in. 15 3/4 | mm. 400 | Diamètre max. admis au-dessus du banc |
| Swing over saddle | in. 9 7/8 | mm. 255 | Diamètre max. admis au-dessus du chariot |
| Distance between centres | in. 39 1/2-79 3/4 | mm. 750-2000 | Entre-pointes |
| Splindle bore | in. 1 3/4 | mm. 45 | Alésage de broche |
| 18 spindle speeds, I | r.p.m. 22-1400 | — | 18 vitesses de broche, I |
| — II | — | — | — II |
| 9 standard longitudinal feeds | in./r. 0.01874-0.09842 | mm/r. 0.4-2.5 | 9 avances longitudinales standard |
| 9 fine longitudinal feeds | in./r. 0.00198-0.01239 | mm/r. 0.05-0.32 | 9 avances longitudinales fines |
| Cross feeds | half the longitudinal feeds | — | Avances transversales |
| Power required | H.P. 10.2 | kW. 7.5 | Puissance nécessaire |
| Approx. net weight | lb. 4400-5340 | kg. 2000-2700 | Poids net approx. |
| Approx. gross weight | lb. 5500-7280 | kg. 2500-3500 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 134.3-212 | m³ 3.8-6 | Vol. approx. d'expédition |

METALEXPORT WARSZAWA

23



MULTI-TOOL
LATHE

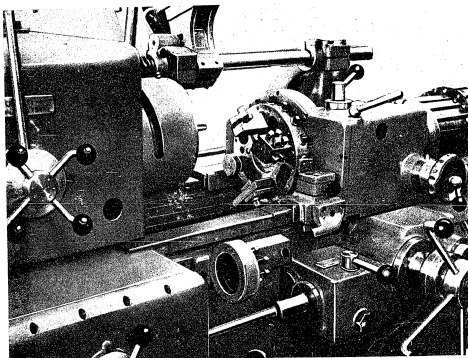
TYPE TWA - 20

TOUR A OUTILS
MULTIPLES

| | British | Metric | |
|--------------------------|------------------------|------------------|--|
| Swing over bed | in. 11 3/4 | mm. 300 | Diamètre max. admis au-dessus du banc |
| Swing over saddle | in. 7 7/8 | mm. 200 | Diamètre max. admis au-dessus du chariot |
| Distance between centres | in. 11 3/4 | mm. 300 | Entre-pointes |
| Splindle bore | in. 1 3/8 | mm. 35 | Alésage de broche |
| 12 spindle speeds | r.p.m. 105-1000 | — | 12 vitesses de broche |
| 96 longitudinal feeds | in./r. 0.00074-0.09881 | mm/r. 0.019-2.51 | 96 avances longitudinales |
| Power required | H.P. 6.1 | kW. 4.5 | Puissance nécessaire |
| Approx. net weight | lb. 3980 | kg. 1800 | Poids net approx. |
| Approx. gross weight | lb. 4950 | kg. 2200 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 120 | m³ 3.5 | Vol. approx. d'expédition |

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METALEKSPORT - WARSZAWA

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA

TURRET LATHE

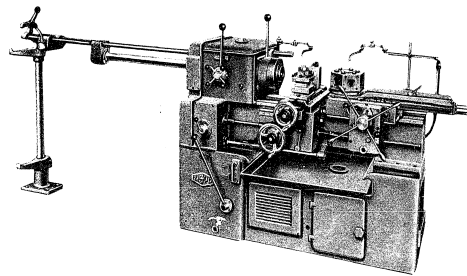
TYPE Rh - 32

TOUR REVOLVER

| | British | Metric | |
|-------------------------|------------------------|-----------------|---------------------------------------|
| Dia. of spindle bore | in. 1 3/8 | mm. 35 | Dia. d'alésage de broche |
| Bar capacity | in. 1 1/4 | mm. 32 | Capacité (barre) |
| Swing over bed | in. 5 7/8 | mm. 150 | Diamètre max. admis au-dessus du banc |
| 8 spindle speeds | r.p.m. 60-1500 | mm/t. 0.08-0.83 | 8 vitesses de broche |
| 6 longitudinal feeds | in./r. 0.00314-0.00389 | mm/t. 0.08-0.83 | 6 avances longitudinales |
| Power required | H.P. 4.1 | kW. 3 | Puissance nécessaire |
| Approx. net weight | lb. 3500 | kg. 1500 | Poids net approx. |
| Approx. gross weight | lb. 3720 | kg. 1650 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 180 | m³ 5.1 | Vol. approx. d'expédition |

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METALEKSPORT - WARSZAWA



TURRET LATHE

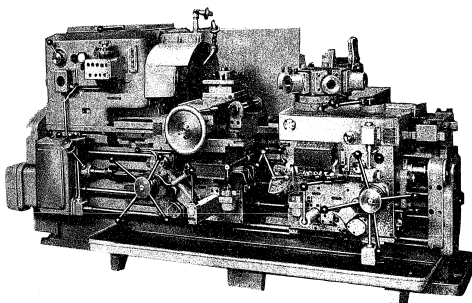
TYPE Rv - 32

TOUR REVOLVER

| | British | Metric | |
|-------------------------------------|------------------------|-----------------|--|
| Dia. of spindle bore | in. 1 3/8 | mm. 35 | Dia. d'alésage de broche |
| Bar capacity | in. 1 1/4 | mm. 32 | Capacité (barre) |
| Swing over bed | in. 13 3/4 | mm. 350 | Diamètre max. admis au-dessus du banc |
| Swing over cross slide | in. 7 1/8 | mm. 180 | Diamètre max. admis au-dessus du chariot transversal |
| 8 spindle speeds | r.p.m. 60-1500 | mm/t. 0.08-0.83 | 8 vitesses de broche |
| 6 longitudinal turret feeds | in./r. 0.00386-0.00940 | mm/t. 0.08-0.83 | 6 avances longitudinales de la tour |
| 3 longitudinal feeds of cross slide | in./r. 0.00383-0.00194 | mm/t. 0.1-0.35 | 3 avances longitudinales du chariot transversal |
| Power required | H.P. 4.1 | kW. 3 | Puissance nécessaire |
| Approx. net weight | lb. 3960 | kg. 1800 | Poids net approx. |
| Approx. gross weight | lb. 5500 | kg. 2500 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 177 | m³ 5.3 | Vol. approx. d'expédition |

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METALEXPORT WARSZAWA
ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX WARSZAWA



**TURRET LATHE
WITH
HYDRAULIC
CONTROL AND
PRESELECTION**

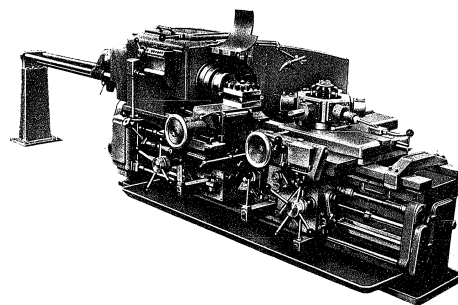
TYPE Rv-50

**TOUR REVOLVER
A COMMANDE
HYDRAULIQUE
ET
PRÉSELECTION**

| | British | Metric | |
|-------------------------|------------------------|--------------------|--|
| Dia. of spindle bore | in. 2 7/16 | mm. 68 | Dia. d'alésage de broche |
| Bar capacity | in. 2 | mm. 50 | Capacité (barre) |
| Swing over cross slide | in. 13 3/4 | mm. 400 | Diamètre max. admis au-dessus du chariot transversal |
| 18 spindle speeds | r.p.m. 15-1800 | r.p.m. 15-1800 | 18 vitesses de broche |
| 9 longitudinal feeds | in./r. 0.003937-0.3852 | mm/r. 0.1-7.3 | 9 avances longitudinales |
| Power required | H.P. 19 | kW. 14 | Puissance nécessaire |
| Approx. net weight | lb. 3900 | kg. 2000 | Poids net approx. |
| Approx. gross weight | lb. 12000 | kg. 5000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 885 | m ³ 7.5 | Vol. approx. d'expédition |

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METALEXPORT WARSZAWA



**TURRET LATHE
WITH
HYDRAULIC
CONTROL AND
PRESELECTION**

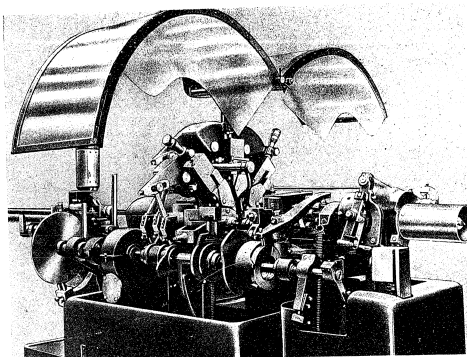
TYPE Rv-80

**TOUR REVOLVER
A COMMANDE
HYDRAULIQUE
ET
PRÉSELECTION**

| | British | Metric | |
|-------------------------------|------------------------|---------------------|--|
| Dia. of spindle bore | in. 3 3/4 | mm. 88 | Dia. d'alésage de broche |
| Bar capacity | in. 3 1/8 | mm. 80 | Capacité (barre) |
| Swing over cross slide | in. 17 3/8 | mm. 440 | Diamètre max. admis au-dessus du chariot transversal |
| 18 spindle speeds | r.p.m. 10.6-1250 | r.p.m. 10.6-1250 | 18 vitesses de broche |
| 9 longitudinal feeds | in./r. 0.00433-0.31495 | mm/r. 0.11-8 | 9 avances longitudinales |
| Cross travel of turret saddle | in. 10 1/4 | mm. 260 | Course transversale de porte-tournevis |
| Power required | H.P. 27.2 | kW. 20 | Puissance nécessaire |
| Approx. net weight | lb. 12500 | kg. 5600 | Poids net approx. |
| Approx. gross weight | lb. 18000 | kg. 7900 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 417 | m ³ 11.8 | Vol. approx. d'expédition |

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METALLENDOZ WARSZAWA

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWAAUTOMATIC
LATHE

TYPE BPU - 7

TOUR
AUTOMATIQUE

| | British | Metric | |
|-------------------------|--------------------|-----------------------|---------------------------|
| Max. bar capacity | in. 1 1/4 | mm. 7 | Capacité maximum (barre) |
| Max. turning length | in. 2 3/4 | mm. 70 | Longueur max. de tournage |
| Spindle speeds | r.p.m. 2000-6000 | 1/m. | 5 vitesses de broche |
| Output | pc./min. 0.66-20.8 | nombre de pièces/min. | Capacité de production |
| Power required | H.P. 1.4 | kW. 1 | Puissance nécessaire |
| Approx. net weight | lb. 1560 | kg. 700 | Poids net approx. |
| Approx. gross weight | lb. 2200 | kg. 1000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 71 | m³ 2 | Vol. approx. d'expédition |

TYPE BPU - 12

| | British | Metric | |
|-------------------------|-------------------|-----------------------|---------------------------|
| Max. bar capacity | in. 1 1/2 | mm. 12 | Capacité max. (barre) |
| Max. turning length | in. 2 3/4 | mm. 70 | Longueur max. de tournage |
| Spindle speeds | r.p.m. 800-6000 | 1/m. | 5 vitesses de broche |
| Output | pc./min. 0.075-33 | nombre de pièces/min. | Capacité de production |
| Power required | H.P. 3 | kW. 2.2 | Puissance nécessaire |
| Approx. net weight | lb. 2640 | kg. 1200 | Poids net approx. |
| Approx. gross weight | lb. 3220 | kg. 1500 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 88 | m³ 2.5 | Vol. approx. d'expédition |

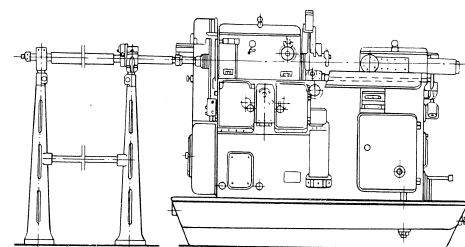
Registered Polish Patents

37183, 37754, 37785, 37803

Brevets polonais enregistrés N°

29

METALLENDOZ WARSZAWA

SINGLE SPINDLE
AUTOMATIC
LATHE

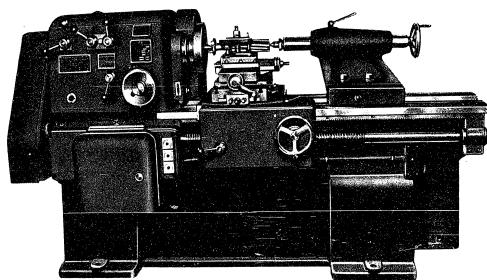
TYPE AJ 25

TOUR
AUTOMATIQUE
A UNE BROCHE

| | British | Metric | |
|-------------------------|-------------------|----------|---------------------------|
| Max. bar capacity | in. 1 | mm. 85 | Capacité max. (barre) |
| Max. turning length | in. 3 1/8 | mm. 80 | Longueur max. de tournage |
| Spindle speeds | r.p.m. 268.5-4200 | 1/m. | 5 vitesses de broche |
| Power required | H.P. 4.1 | kW. 3 | Puissance nécessaire |
| Approx. net weight | lb. 3300 | kg. 1500 | Poids net approx. |
| Approx. gross weight | lb. 4180 | kg. 1900 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 142 | m³ 4 | Vol. approx. d'expédition |

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METALEXPORT - WARSZAWA

UNIVERSAL
RELIEVING LATHE

TYPE INB - 55

TOUR UNIVERSEL
A DÉTALONNER

| | British | Metric | |
|--------------------------|------------------------|--------------------|--|
| Swing over bed | in. 22 1/8 | mm. 560 | Diamètre max. admis au-dessus du banc |
| Swing over saddle | in. 11 3/8 | mm. 290 | Diamètre max. admis au-dessus du chariot |
| Distance between centres | in. 31 1/2 | mm. 800 | Entre-pointes |
| 12 speeds speeds | | f.p.m. 4.5-192 cm. | 12 vitesses de broche |
| 6 longitudinal feeds | in./r. 0.003937-0.0893 | mm/r. 0.1-0.75 | 6 avances longitudinales |
| Power required | H.P. 4.1 | kW. 3 | Puissance nécessaire |
| Approx. net weight | lb. 4850 | kg. 2200 | Poids net approx. |
| Approx. gross weight | lb. 6160 | kg. 2800 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 163 | m³ 4.6 | Vol. approx. d'expédition |

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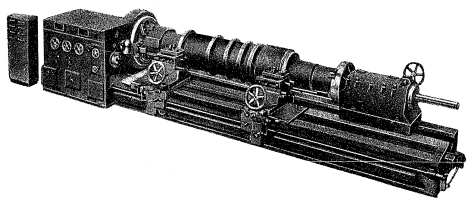
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ROLL TURNING LATHES
TOURS POUR CYLINDRES

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METALEXPOUR - WARSZAWA
ADDRESS : WARSAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



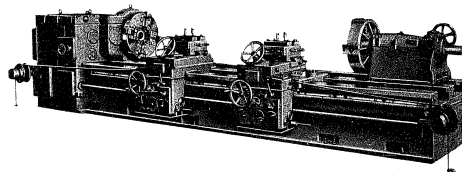
ROLL TURNING LATHE

TYPE 3 TAP

TOUR POUR CYLINDRES

| | British | Metric | |
|----------------------------|-----------------------|-------------------|------------------------------------|
| Max. turning dia. | in. 30 3/8 | mm. 1000 | Dia. max. de tournage |
| Roll journal dia. | in. 9 7/8-18 7/8 | mm. 250-480 | Dia. de portée de cylindre |
| Distance between centres | in. 196 7/8 | mm. 5000 | Entre-pôles |
| Headstock chuck plate dia. | in. 35 1/2 | mm. 900 | Dia. de serrage (goupille motrice) |
| Tailstock chuck plate dia. | in. 30 1/2 | mm. 750 | Dia. de serrage (contre-goupille) |
| 16 spindle speeds | r.p.m. 0.6-45 1/2 in. | | 16 vitesses de broche |
| 15 longitudinal feeds | in./r. 0.01181-0.1392 | mm/it. 0.3-6 | 15 avances longitudinales |
| Power required | H.P. 43 | kW. 31.5 | Puissance nécessaire |
| Approx. net weight | lb. 46000 | kg. 30000 | Poids net approx. |
| Approx. gross weight | lb. 76000 | kg. 34000 | Poids brut approx. |
| Approx. shipping volume | cu ft. 1940 | m ³ 52 | Vol. approx. d'expédition |

33



ROLL TURNING LATHE

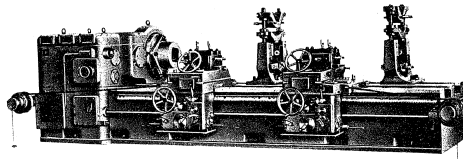
TYPE 2 TAP/Z

TOUR POUR CYLINDRES

| | British | Metric | |
|-------------------------------|------------------------|---------------------|------------------------------------|
| Max. turning dia. | in. 30 | mm. 710 | Dia. max. de tournage |
| Roll journal dia. | in. 7 7/8-13 3/4 | mm. 200-350 | Dia. de portée de cylindre |
| Turning length | in. 137 3/4 | mm. 3500 | Longueur de tournage |
| Headstock chuck plate dia. | in. 26 3/8 | mm. 670 | Dia. de serrage (goupille motrice) |
| Tailstock chuck plate dia. | in. 24 3/4 | mm. 630 | Dia. de serrage (contre-goupille) |
| 18 spindle speeds | r.p.m. 1.25-95 1/2 in. | | 18 vitesses de broche |
| 8 standard longitudinal feeds | in./r. 0.00492-0.05911 | mm/it. 0.125-1.4 | 8 avances longitudinales standard |
| 8 quick longitudinal feeds | in./r. 0.01397-0.13747 | mm/it. 0.355-4 | 8 avances longitudinales rapides |
| 8 standard cross feeds | in./r. 0.00196-0.02304 | mm/it. 0.05-0.58 | 8 avances transversales standard |
| 8 quick cross feeds | in./r. 0.00518-0.06359 | mm/it. 0.142-1.6 | 8 avances transversales rapides |
| Power required | H.P. 29.5 | kW. 21.5 | Puissance nécessaire |
| Approx. net weight | lb. 37400 | kg. 17000 | Poids net approx. |
| Approx. gross weight | lb. 45000 | kg. 20000 | Poids brut approx. |
| Approx. shipping volume | cu ft. 970 | m ³ 27.4 | Vol. approx. d'expédition |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



ROLL TURNING LATHE

TYPE 2 TAP/K

TOUR POUR CYLINDRES

| | British | Metric | |
|-------------------------------|-----------------------|-------------------|-----------------------------------|
| Max. turning dia. | in. 28 | mm. 710 | Dia. max. de tournage |
| Roll journal dia. | in. 7 7/8-13 3/4 | mm. 200-330 | Dia. de portée de cylindre |
| Turning length | in. 98 3/8 | mm. 2500 | Longueur de tournage |
| Chuck plate dia. | in. 20 3/8 | mm. 520 | Dia. de serrage |
| 16 spindle speeds | c.p.m. 0.71-52 | mm/t. 0.135-1.4 | 16 vitesses de broche |
| 8 standard longitudinal feeds | in./r. 0.00489-0.0051 | mm/t. 0.355-4 | 8 avances longitudinales standard |
| 8 quick longitudinal feeds | in./r. 0.01397-0.1374 | mm/t. 0.35-0.58 | 8 avances longitudinales rapides |
| 8 standard cross feeds | in./r. 0.00196-0.0220 | mm/t. 0.0143-1.6 | 8 avances transversales standard |
| 8 quick cross feeds | in./r. 0.00318-0.0629 | | 8 avances transversales rapides |
| Power required | H.P. 18 | kW. 14 | Puissance nécessaire |
| Approx. net weight | lb. 31700 | kg. 14400 | Poids net approx. |
| Approx. gross weight | lb. 37400 | kg. 17000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 850 | m ³ 24 | Vol. approx. d'expédition |

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VERTICAL BORING
AND TURNING MILLS

TOURS VERTICAUX

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36

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA

**DOUBLE COLUMN
VERTICAL BORING
AND TURNING
MILL WITH
HYDRAULIC
CONTROL AND
PRESELECTION**

TYPE KCE - 200

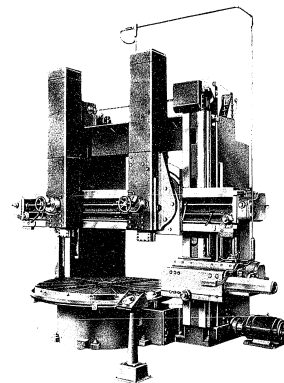
**TOUR VERTICAL
A DEUX MONTANTS
AVEC COMMANDE
HYDRAULIQUE
ET PRÉSELECTION**

| | British | Metric | | British | Metric |
|------------------------------------|-----------------------|--------------------|------------------------------------|-----------------------|--------------------|
| Table dia | in. 78 3/4 | mm. 2000 | Table dia | in. 78 3/4 | mm. 2000 |
| Max. turning dia. i | in. 88 5/8 | mm. 2280 | Max. turning dia. i | in. 88 5/8 | mm. 2280 |
| with vertical head | in. 78 3/4 | mm. 2000 | with vertical head | in. 78 3/4 | mm. 2000 |
| with side head | in. 51 1/8 | mm. 1300 | with side head | in. 51 1/8 | mm. 1300 |
| Max. height of machined work piece | r.p.m. 1-50 t/m. | mm/t. 0.175-8 | Max. height of machined work piece | r.p.m. 1-50 t/m. | mm/t. 0.175-8 |
| 12 table speeds | in./r. 0.00887-0.3149 | mm/t. 0.175-8 | 12 table speeds | in./r. 0.00887-0.3149 | mm/t. 0.175-8 |
| 12 vertical and horizontal feeds | H.P. 61.5 | kW. 45 | 12 vertical and horizontal feeds | H.P. 61.5 | kW. 45 |
| Power required | lb. 70000 | kg. 33000 | Power required | lb. 70000 | kg. 33000 |
| Approx. net weight | lb. 88000 | kg. 40000 | Approx. net weight | lb. 88000 | kg. 40000 |
| Approx. gross weight | cu.ft. 3700 | m ³ 105 | Approx. gross weight | cu.ft. 3700 | m ³ 105 |
| Approx. shipping volume | | | Approx. shipping volume | | |

TYPE IKCE

| | British | Metric | | British | Metric |
|------------------------------------|-----------------------|--------------------|------------------------------------|-----------------------|--------------------|
| Table dia | in. 90 1/8 | mm. 3300 | Table dia | in. 90 1/8 | mm. 3300 |
| Max. turning dia. i | in. 110 1/4 | mm. 2800 | Max. turning dia. i | in. 110 1/4 | mm. 2800 |
| with vertical head | in. 104 3/8 | mm. 2650 | with vertical head | in. 104 3/8 | mm. 2650 |
| with side head | in. 72 7/8 | mm. 1850 | with side head | in. 72 7/8 | mm. 1850 |
| Max. height of machined work piece | r.p.m. 0.71-35.5 t/m. | mm/t. 0.242-11 | Max. height of machined work piece | r.p.m. 0.71-35.5 t/m. | mm/t. 0.242-11 |
| 12 table speeds | in./r. 0.00971-0.430 | mm/t. 0.242-11 | 12 table speeds | in./r. 0.00971-0.430 | mm/t. 0.242-11 |
| 12 vertical and horizontal feeds | H.P. 62.7 | kW. 54.6 | 12 vertical and horizontal feeds | H.P. 62.7 | kW. 54.6 |
| Power required | lb. 107850 | kg. 49000 | Power required | lb. 107850 | kg. 49000 |
| Approx. net weight | lb. 140000 | kg. 56300 | Approx. net weight | lb. 140000 | kg. 56300 |
| Approx. gross weight | cu.ft. 3880 | m ³ 110 | Approx. gross weight | cu.ft. 3880 | m ³ 110 |
| Approx. shipping volume | | | Approx. shipping volume | | |

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**DOUBLE
COLUMN
VERTICAL
BORING AND
TURNING MILL
WITH
HYDRAULIC
CONTROL AND
PRESELECTION**

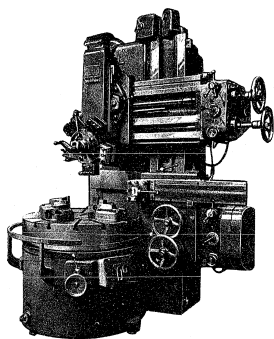
TYPE 2 KCE

**TOUR
VERTICAL
A DEUX
MONTANTS
AVEC
COMMANDE
HYDRAULIQUE
ET
PRÉSELECTION**

| | British | Metric | | British | Metric |
|------------------------------------|------------------------|--------------------|------------------------------------|------------------------|--------------------|
| Table dia | in. 128 | mm. 3200 | Table dia | in. 128 | mm. 3200 |
| Max. turning dia. i | in. 141 3/4 | mm. 3600 | Max. turning dia. i | in. 141 3/4 | mm. 3600 |
| with vertical head | in. 133 7/8 | mm. 3400 | with vertical head | in. 133 7/8 | mm. 3400 |
| with side head | in. 72 7/8 | mm. 1850 | with side head | in. 72 7/8 | mm. 1850 |
| Max. height of machined work piece | r.p.m. 0.5-35 t/m. | mm/t. 0.35-16 | Max. height of machined work piece | r.p.m. 0.5-35 t/m. | mm/t. 0.35-16 |
| 12 table speeds | in./r. 0.01377-0.63890 | mm/t. 0.35-16 | 12 table speeds | in./r. 0.01377-0.63890 | mm/t. 0.35-16 |
| 12 vertical and horizontal feeds | H.P. 77.8 | kW. 58 | 12 vertical and horizontal feeds | H.P. 77.8 | kW. 58 |
| Power required | lb. 130000 | kg. 59000 | Power required | lb. 130000 | kg. 59000 |
| Approx. net weight | lb. 142000 | kg. 67000 | Approx. net weight | lb. 142000 | kg. 67000 |
| Approx. gross weight | cu.ft. 4500 | m ³ 128 | Approx. gross weight | cu.ft. 4500 | m ³ 128 |
| Approx. shipping volume | | | Approx. shipping volume | | |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



**SINGLE COLUMN
VERTICAL
BORING AND
TURNING MILL
WITH HYDRAULIC
CONTROL**

TYPE KN - 11

**TOUR VERTICAL
A UN SEUL
MONTANT
AVEC
COMMANDE
HYDRAULIQUE**

| | British | Metric | |
|--|-----------------------|-------------------|--|
| Table dia | in. 43 1/4 | mm. 1100 | Dia. de table |
| Max. turning dia:
with turret head | in. 47 1/4 | mm. 1200 | Dia. max. de tournage
avec tête verticale |
| with side head | in. 43 1/4 | mm. 1100 | avec tête latérale |
| Max. height of machined
workpiece | in. 37 1/8 | mm. 950 | Hauteur max. de la pièce
usinée |
| 16 table speeds | r.p.m. 5-155 | r.p.m. 0.23-11.1 | 16 vitesses de table |
| 12 turret head feeds | in./r. 0.00005-0.4365 | mm/r. 0.23-11.1 | 12 avances de la tête
verticale |
| Rapid power traverse of
turret head | in./min. 70 7/8 | mm/min. 1800 | Retour rapide de la tête
verticale |
| Rapid power traverse of
cross slide | in./min. 19 3/4 | mm/min. 500 | Retour rapide du chariot
transversal |
| Power required | H.P. 34.0 | kW. 25.5 | Puissance nécessaire |
| Approx. net weight | lb. 24800 | kg. 11000 | Poids net approx. |
| Approx. gross weight | lb. 31200 | kg. 14500 | Poids brut approx. |
| Approx. shipping volume | cu. ft. 990 | m ³ 28 | Vol. approx. d'emballage |

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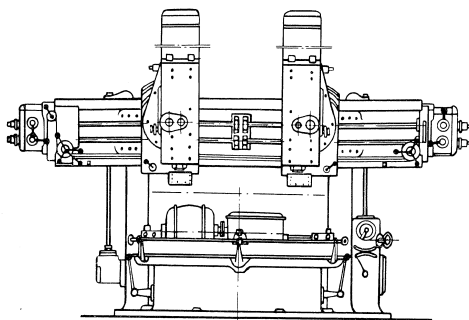
RAILWAY SHOP LATHES

TOURS POUR ATELIERS
DE CONSTRUCTION
DE CHEMINS DE FER

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40

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



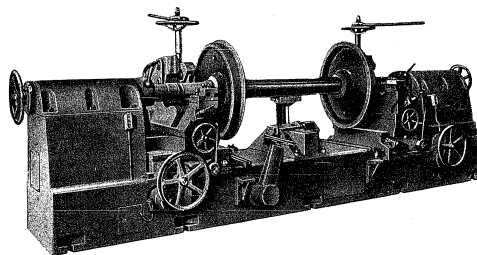
**DOUBLE COLUMN
VERTICAL BORING
AND TURNING
MILL FOR
RAILWAY WHEELS**

TYPE 2,5 KBE - R

**TOUR VERTICAL
POUR ROUES
MONTÉES**

| | British | Metric | |
|--|----------------------|-------------------|--|
| Max. workpiece dia. | in. 82 3/8 | mm. 2100 | Dia. max. de pièce usinée |
| Min. workpiece dia. | in. 27 1/2 | mm. 700 | Dia. min. de pièce usinée |
| Max. height of machined workpiece | in. 17 3/4 | mm. 450 | Hauteur max. de la pièce usinée |
| 16 table speeds | in./min. 0.007-0.315 | r.p.m. 1.8-33.1 | 16 vitesses de table |
| 12 feeds | in./min. 0.007-0.315 | mm./min. 0.178-80 | 12 avances |
| Rapid power traverse of heads in both directions | in./min. 21 2/8 | mm/min. 550 | Retour rapide des têtes de tournage dans les deux directions |
| Power required | H.P. 36.1 | kW. 26.5 | Puissance nécessaire |
| Approx. net weight | lb. 85000 | kg. 2500 | Poids net approx. |
| Approx. gross weight | lb. 62700 | kg. 2850 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 1275 | m ³ 35 | Vol. approx. d'expédition |

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**AXLE JOURNAL
TURNING AND
BURNISHING
WHEEL LATHE**

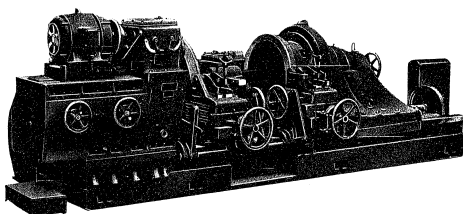
TYPE TBG/U

**TOUR A FUSÉES
D'ESSEUX
TOURNAGE
ET POLISSAGE**

| | British | Metric | |
|-------------------------|-------------------|---------------------|---|
| Max. tread dia. | in. 43 1/4 | mm. 1100 | Dia. max. de surface de roulement des roues |
| Max. axle length | in. 23 3/4-7 1/2 | mm. 70-180 | Dia. de fusée d'essieu |
| Gauge | in. 82 7/8 | mm. 2102 | Longueur max. d'essieu |
| Belt pulley speeds | in. 50 1/2-60 1/8 | mm. 1430-1524 | Écartement de voie |
| | | r.p.m. 375 and 750 | Vitesse de poulie porte-tourne |
| Power required | H.P. 8.8/11.1 | kW. 6.5/8.1 | Puissance nécessaire |
| Approx. net weight | lb. 23900 | kg. 10400 | Poids net approx. |
| Approx. gross weight | lb. 28900 | kg. 13000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 1120 | m ³ 30.3 | Vol. approx. d'expédition |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



**SEMI-AUTOMATIC
LATHE FOR
RAILWAY CAR
WHEEL-SETS**

TYPE ITCH

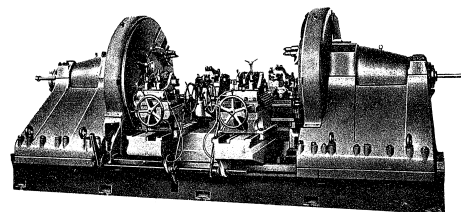
**TOUR SEMI-
AUTOMATIQUE
POUR ROUES
MONTÉES
DE WAGONS**

| | British | Metric | |
|-----------------------------|------------------------|------------------|---|
| Tread dia. | in. 33 1/2-43 1/4 | mm. 850-1100 | Dia. de surface de roulement des roues |
| Max. axle length | in. 87 3/4 | mm. 2430 | Longueur max. d'essieu |
| Gauge | in. 56 1/2-60 1/8 | mm. 1435-1524 | Vale |
| 12 spindle speeds | r.p.m. 2.34-22.33 | mm/min. 0.47-3.3 | 12 vitesses de broche |
| Longitudinal roughing feeds | in./r. 0.01849-0.12682 | mm/r. 0.47-3.3 | Avances de dégrossissage longitudinales |
| Power required | H.P. 69.5 | kW. 51 | Avances de dégrossissage longitudinales |
| Approx. net weight | lb. 72000 | kg. 33000 | Poids net approx. |
| Approx. gross weight | lb. 83000 | kg. 38000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 2100 | m³ 61 | Vol. approx. d'expédition |

TYPE ITCT

| | British | Metric | |
|-----------------------------|------------------------|------------------|---|
| Tread dia. | in. 31 5/8-34 1/4 | mm. 800-870 | Dia. de surface de roulement des roues |
| Max. axle length | in. 83 3/4 | mm. 2100 | Longueur max. d'essieu |
| Gauge | in. 56 1/2-60 1/8 | mm. 1435-1524 | Vale |
| 12 spindle speeds | r.p.m. 2.34-22.33 | mm/min. 0.47-3.3 | 12 vitesses de broche |
| Longitudinal roughing feeds | in./r. 0.01849-0.12682 | mm/r. 0.47-3.3 | Avances de dégrossissage longitudinales |
| Power required | H.P. 69.5 | kW. 51 | Avances de dégrossissage longitudinales |
| Approx. net weight | lb. 72000 | kg. 33000 | Poids net approx. |
| Approx. gross weight | lb. 83000 | kg. 38000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 2100 | m³ 61 | Vol. approx. d'expédition |

43

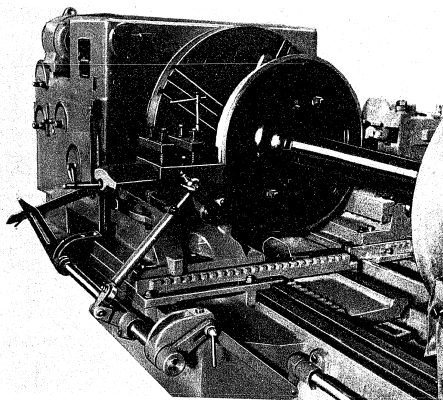
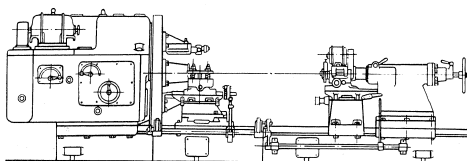


**SEMI-AUTOMATIC
WHEEL-LATHE
FOR
LOCOMOTIVE
AND TENDER
WHEEL-SETS**

TYPE 3TCH/H

**TOUR SEMI-
AUTOMATIQUE
POUR ROUES
MONTÉES DE
LOCOMOTIVES
ET DE TENDERS**

| | British | Metric | |
|------------------------------|------------------------|------------------|--|
| Turning dia of tread | in. 37 3/8-49 5/8 | mm. 950-1250 | Dia. de surface de roulement des roues |
| Max. distance between plates | in. 118 1/8 | mm. 3000 | Distance max. entre plaques |
| Gauge | in. 56 1/2 | mm. 1435 | Vale |
| 12 spindle speeds | r.p.m. 0.57-10.55 | mm/min. 0.45-3.3 | 12 vitesses de broche |
| Longitudinal feeds | in./r. 0.01770-0.12682 | mm/r. 0.45-3.3 | Avances longitudinales |
| Power required | H.P. 75 | kW. 55 | Puissance nécessaire |
| Approx. net weight | lb. 127000 | kg. 58000 | Poids net approx. |
| Approx. gross weight | lb. 139000 | kg. 63000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 3440 | m³ 92 | Vol. approx. d'expédition |



UNIVERSAL WHEEL LATHE

TYPE 1 TCG

TOUR A ROUES MONTÉES UNIVERSEL

| British | | Metric | |
|-------------------------|------------------------|---------------------|-----------------------------------|
| Max. tread dia | in. 43 1/4 | mm. 1100 | Dia. max. de surface de roulement |
| Min. tread dia | in. 21 5/8 | mm. 550 | Dia. min. de surface de roulement |
| Max. axle length | in. 90 1/2 | mm. 2300 | Longueur max. d'essieu |
| Gauge | in. 29 1/2-66 | mm. 750-1676 | Vole |
| 12 spindle speeds | r.p.m. 0.88-27.3 (1/m) | | 12 vitesses de broche |
| Front carriage feeds | in./r. 0.03149-0.18996 | mm/r. 0.8-4.8 | Avances du chariot avant |
| Power required | H.P. 23 | kW. 17 | Puissance nécessaire |
| Approx. net weight | lb. 46200 | kg. 21000 | Poids net approx. |
| Approx. gross weight | lb. 53000 | kg. 24000 | Poids brut approx. |
| Approx. shipping volume | cu. ft. 1150 | m ³ 32.7 | Volume approx. d'expédition |

TYPE 2 TCG

| British | | Metric | |
|-------------------------|------------------------|-------------------|---------------------------|
| Max. tread dia | in. 55 1/8 | mm. 1400 | Dia. max. de bandage |
| Min. tread dia | in. 31 5/8 | mm. 800 | Dia. min. de bandage |
| Max. axle length | in. 90 1/2 | mm. 2300 | Longueur max. d'essieu |
| Gauge | in. 29 1/2-66 | mm. 750-1676 | Vole |
| 12 spindle speeds | r.p.m. 0.88-27.3 (1/m) | | 12 vitesses de broche |
| Front carriage feeds | in./r. 0.03149-0.18996 | mm/r. 0.8-4.8 | Avances du chariot avant |
| Power required | H.P. 23 | kW. 17 | Puissance nécessaire |
| Approx. net weight | lb. 48400 | kg. 22000 | Poids net approx. |
| Approx. gross weight | lb. 57200 | kg. 26000 | Poids brut approx. |
| Approx. shipping volume | cu. ft. 1340 | m ³ 38 | Vol. approx. d'expédition |

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MILLING MACHINES

FRAISEUSES

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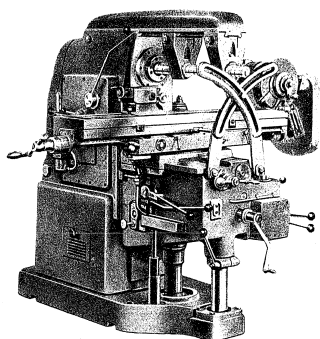
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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



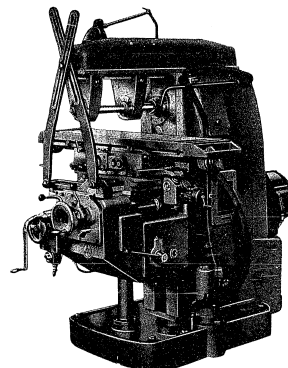
**UNIVERSAL
MILLING
MACHINE**

TYPE FU - 1a

**FRAISEUSE
UNIVERSELLE**

| | British | Metric | |
|--------------------------------|-----------------------|------------------|----------------------------------|
| Table dimensions | in. 43 1/4 x 9 7/8 | mm. 1120 x 250 | Dimensions de table : |
| Table travel : | | | Course de la table : |
| longitudinal | in. 23 5/8 | mm. 600 | longitudinale |
| cross | in. 7 1/16 | mm. 180 | transversale |
| vertical | in. 14 3/8 | mm. 365 | verticale |
| Spindle taper : metric | | mm. 70 | Broche : cône métrique |
| Distance between spindle | | | Distance entre le centre de |
| center and table : | | | broche et la table : |
| max. | in. 16 3/8 | mm. 415 | max. |
| min. | in. 5/8 | mm. 15 | min. |
| 48 spindle speeds | r.p.m. 36.5-1800 | 1/m. | 48 vitesses de broche |
| 16 table feeds : | | | 16 avances de table : |
| longitudinal | in./min. 1/8-1/8 3/8 | mm/min. 11.8-500 | longitudinales |
| cross | in./min. 1/16-1/8 3/8 | mm/min. 7.9-332 | transversales |
| vertical | in./min. 1/8-5/8 | mm/min. 3.9-167 | verticales |
| Power required | H.P. 4.7 | kW. 3.5 | Puissance nécessaire |
| Approx. net weight | lb. 3960 | kg. 1800 | Poids net approx. |
| Approx. gross weight | lb. 4850 | kg. 2200 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 247 | m ³ 7 | Vol. approx. d'expédition |

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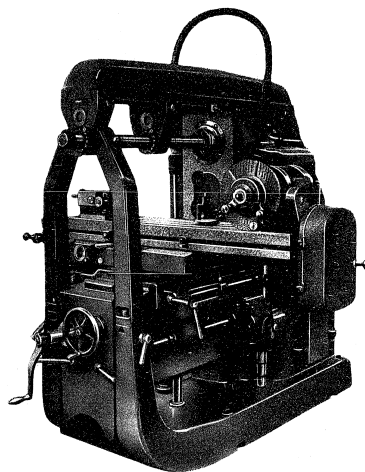


**UNIVERSAL
MILLING
MACHINE**

TYPE FWB - 25

**FRAISEUSE
UNIVERSELLE**

| | British | Metric | |
|--------------------------------|----------------------|------------------|----------------------------------|
| Table dimensions | in. 44 1/8 x 10 1/4 | mm. 1130 x 260 | Dimensions de table : |
| Table travel : | | | Course de la table : |
| longitudinal | in. 25 1/8 | mm. 650 | longitudinale |
| cross | in. 7 1/8 | mm. 190 | transversale |
| vertical | in. 13 3/4 | mm. 350 | verticale |
| Spindle taper : metric | | mm. 44 | Broche : cône métrique |
| Max. distance between | | | Distance max. entre centre |
| spindle center and table | in. 13 3/4 | mm. 350 | de la broche et table |
| min. | | | min. |
| 16 spindle speeds | r.p.m. 65-1800 | 1/m. | 16 vitesses de broche |
| 16 table feeds : | | | 16 avances de table : |
| longitudinal | in./min. 1/8-3/8 5/8 | mm/min. 35-980 | longitudinales |
| cross | in./min. 1/32-1/8 | mm/min. 25-765 | transversales |
| vertical | in./min. 1/8-1/2 | mm/min. 18-580 | verticales |
| Power required | H.P. 8.4 | kW. 6.2 | Puissance nécessaire |
| Approx. net weight | lb. 4600 | kg. 2090 | Poids net approx. |
| Approx. gross weight | lb. 5300 | kg. 2500 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 247 | m ³ 7 | Vol. approx. d'expédition |



HIGH SPEED UNIVERSAL MILLING MACHINE

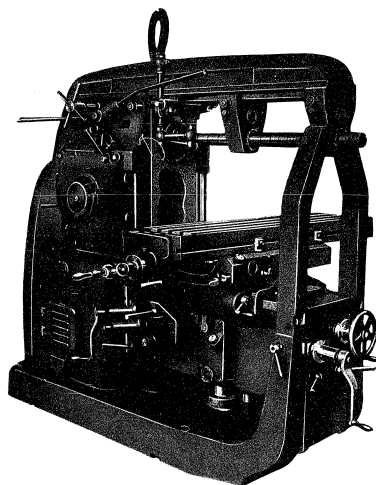
TYPE 2 FWA

FRAISEUSE UNIVERSELLE RAPIDE

| | British | Metric | |
|---|---------------------|---------------------|---|
| Table dimensions | in. 53 1/8 x 12 1/4 | mm. 1350 x 310 | Dimensions de table |
| Table travel: | | | Course de la table: |
| longitudinal | in. 27 1/2 | mm. 700 | longitudinale |
| cross | in. 9 3/8 | mm. 250 | transversale |
| vertical | in. 16 1/8 | mm. 410 | verticale |
| Spindle taper: ISA | | | Broche: cône ISA |
| Max. distance between spindle centre and table | in. 16 1/2 | mm. 420 | Distance max. entre centre de la broche et table |
| 21 spindle speeds | | r.p.m. 20-1500 i/m. | 21 vitesses de broche |
| 32 table feeds: | | | 32 avances de table: |
| longitudinal | in./min. 1/3-29 3/4 | mm/min. 15-1010 | longitudinales |
| cross | in./min. 3/8-29 3/4 | mm/min. 9-758 | transversales |
| vertical | in./min. 1/4-19 7/8 | mm/min. 6-505 | verticales |
| Power required | H.P. 5 | kW. 3.7 | Puissance nécessaire |
| Approx. net weight | lb. 8160 | kg. 3700 | Poids net approx. |
| Approx. gross weight | lb. 9460 | kg. 4300 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 283 | m³ 8 | Vol. approx. d'expédition |

TYPE 3 FWA

| | British | Metric | |
|---|---------------------|---------------------|---|
| Table dimensions | in. 63 x 15 3/8 | mm. 1600 x 390 | Dimensions de table |
| Table travel: | | | Course de la table: |
| longitudinal | in. 22 1/4 | mm. 565 | longitudinale |
| cross | in. 11 1/8 | mm. 300 | transversale |
| vertical | in. 17 3/8 | mm. 440 | verticale |
| Spindle taper: ISA | | | Broche: cône ISA |
| Max. distance between spindle centre and table | in. 17 3/4 | mm. 450 | Distance max. entre centre de la broche et table |
| 21 spindle speeds | | r.p.m. 18-1300 i/m. | 21 vitesses de broche |
| 32 table feeds: | | | 32 avances de table: |
| longitudinal | in./min. 1/3-29 3/4 | mm/min. 15-1000 | longitudinales |
| cross | in./min. 3/8-29 3/4 | mm/min. 9-758 | transversales |
| vertical | in./min. 1/4-19 7/8 | mm/min. 6-505 | verticales |
| Power required | H.P. 7.5 | kW. 5.5 | Puissance nécessaire |
| Approx. net weight | lb. 980 | kg. 4500 | Poids net approx. |
| Approx. gross weight | lb. 11700 | kg. 5300 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 300 | m³ 8.5 | Vol. approx. d'expédition |



HIGH SPEED HORIZONTAL MILLING MACHINE

TYPE 2 FXA

FRAISEUSE HORIZONTALE RAPIDE

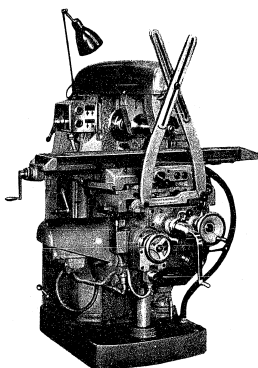
| | British | Metric | |
|---|---------------------|-----------------|---|
| Table dimensions | in. 53 1/8 x 12 1/4 | mm. 1350 x 310 | Dimensions de table |
| Table travel: | | | Couree de la table: |
| longitudinal | in. 27 5/8 | mm. 700 | longitudinale |
| cross | in. 8 7/8 | mm. 220 | transversale |
| vertical | in. 17 3/8 | mm. 440 | verticale |
| Spindle taper: ISA | | | Broche: Cône ISA |
| Max. distance between spindle centre and table | in. 17 3/4 | mm. 450 | Distance max. entre centre de la broche et table |
| 21 spindle speeds | r.p.m. 20-1500 1/m. | | 21 vitesses de broche |
| 32 table feeds: | | | 32 avances de table: |
| longitudinal | in./min. 1/3-33 3/4 | mm/min. 13-1010 | longitudinales |
| cross | in./min. 3/8-33 3/4 | mm/min. 9-728 | transversales |
| vertical | in./min. 1/4-15 7/8 | mm/min. 6-505 | verticales |
| Power required | H.P. 5 | kW. 3.7 | Puissance nécessaire |
| Approx. net weight | lb. 7900 | kg. 3600 | Poids net approx. |
| Approx. gross weight | lb. 8340 | kg. 4800 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 283 | m³ 8 | Vol. approx. d'expédition |

TYPE 4 FXA

| | British | Metric | |
|---|---------------------|-----------------|---|
| Table dimensions | in. 78 3/4 x 18 1/8 | mm. 2000 x 410 | Dimensions de table |
| Table travel: | | | Couree de la table: |
| longitudinal | in. 42 | mm. 1065 | longitudinale |
| cross | in. 14 1/8 | mm. 363 | transversale |
| vertical | in. 18 1/8 | mm. 460 | verticale |
| Spindle taper: ISA | | | Broche: Cône ISA |
| Max. distance between spindle centre and table | in. 16 1/2 | mm. 470 | Distance max. entre centre de la broche et table |
| 21 spindle speeds | r.p.m. 18-1300 1/m. | | 21 vitesses de broche |
| 32 table feeds: | | | 32 avances de table: |
| longitudinal | in./min. 1/3-33 3/4 | mm/min. 13-1010 | longitudinales |
| cross | in./min. 3/8-33 3/4 | mm/min. 9-728 | transversales |
| vertical | in./min. 1/4-15 7/8 | mm/min. 6-505 | verticales |
| Power required | H.P. 10 | kW. 7.5 | Puissance nécessaire |
| Approx. net weight | lb. 10550 | kg. 4800 | Poids net approx. |
| Approx. gross weight | lb. 12300 | kg. 5600 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 318 | m³ 9 | Vol. approx. d'expédition |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



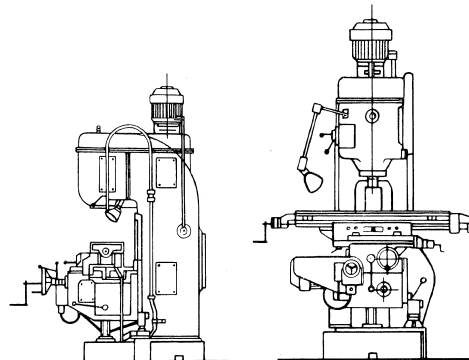
**HIGH SPEED
HORIZONTAL
MILLING
MACHINE**

TYPE FXB - 25

**FRAISEUSE
HORIZONTALE
RAPIDE**

| | British | Metric | |
|---|-----------------------|------------------|---|
| Table dimensions | in. 44 1/8 x 10 1/4 | mm. 1120 x 260 | Dimensions de table |
| Table travel : | | | Coureur de la table : |
| longitudinal | in. 25 5/8 | mm. 650 | longitudinale |
| cross | in. 7 1/2 | mm. 190 | transversale |
| vertical | in. 12 3/4 | mm. 400 | verticale |
| Max. distance between
spindle centre and table | in. 18 3/4 | mm. 400 | Distance max. entre centre
de la broche et table |
| Spindle taper route | | mm. 44 | Broche : cône métrique |
| 16 spindle speeds | r.p.m. 65-1800 | r.p.m. 65-1800 | 16 vitesses de broche |
| 16 table feeds : | | | 16 avances de table : |
| longitudinal | in./min. 1 3/8-35 5/8 | mm/min. 35-900 | longitudinales |
| cross | in./min. 1/8-30 1/8 | mm/min. 35-765 | transversales |
| vertical | in./min. 1/8-15 | mm/min. 13-380 | verticales |
| Power required | H.P. 8.4 | kW. 6.2 | Puissance nécessaire |
| Approx. net weight | lb. 4600 | kg. 2000 | Poids net approx. |
| Approx. gross weight | lb. 5500 | kg. 2500 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 247 | m ³ 7 | Vol. approx. d'expédition |

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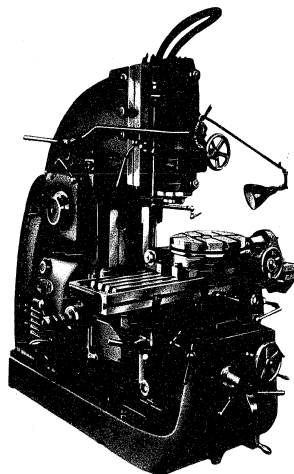


**HIGH SPEED
VERTICAL
MILLING MACHINE**

TYPE FYB - 25

**FRAISEUSE
VERTICALE
RAPIDE**

| | British | Metric | |
|---|-----------------------|------------------|--|
| Table dimensions | in. 44 1/8 x 10 1/4 | mm. 1120 x 260 | Dimensions de table |
| Table travel : | | | Coureur de la table : |
| longitudinal | in. 25 5/8 | mm. 650 | longitudinale |
| cross | in. 7 1/2 | mm. 190 | transversale |
| vertical | in. 12 3/4 | mm. 400 | verticale |
| Max. height of spindle nose
over table | in. 18 3/4 | mm. 400 | Hauteur max. du nez de
broche au-dessus de la
table |
| Spindle taper : metric | | mm. 44 | Broche : cône métrique |
| 16 spindle speeds | r.p.m. 65-1800 | r.p.m. 65-1800 | 16 vitesses de broche |
| 16 table feeds : | | | 16 avances de table : |
| longitudinal | in./min. 1 3/8-35 5/8 | mm/min. 35-900 | longitudinales |
| cross | in./min. 1/8-30 1/8 | mm/min. 35-765 | transversales |
| vertical | in./min. 1/8-15 | mm/min. 13-380 | verticales |
| Power required | H.P. 8.4 | kW. 6.2 | Puissance nécessaire |
| Approx. net weight | lb. 4600 | kg. 2100 | Poids net approx. |
| Approx. gross weight | lb. 6380 | kg. 2900 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 318 | m ³ 9 | Vol. approx. d'expédition |



HIGH SPEED VERTICAL MILLING MACHINE

TYPE 2 FYA

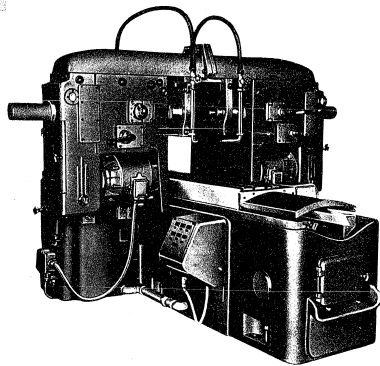
FRAISEUSE VERTICALE RAPIDE

| | British | Metric | |
|---|---------------------|---------------------|--|
| Table dimensions | in. 53 1/8 x 12 1/4 | mm. 1350 x 310 | Dimensions de table |
| Table travel: | | | Course de la table: |
| longitudinal | in. 27 5/8 | mm. 700 | longitudinale |
| cross | in. 11 | mm. 280 | transversale |
| vertical | in. 11 3/8 | mm. 290 | verticale |
| Vertical travel of milling head | in. 5 7/8 | mm. 150 | Course verticale de la tête de brochage |
| Spindle taper: ISA | | | Broche: cône ISA |
| Max. height of spindle nose over table | in. 12 3/4 | mm. 400 | Hauteur max. du nez de broche au-dessus de la table |
| 21 spindle speeds | | r.p.m. 20-1500 i/m. | 21 vitesses de broche |
| 32 table feeds: | | | 32 avances de table: |
| longitudinal | in./min. 1/32-3/4 | mm/min. 12-1010 | longitudinales |
| cross | in./min. 3/8-25 3/4 | mm/min. 9-708 | transversales |
| vertical | in./min. 1/4-12 7/8 | mm/min. 6-503 | verticales |
| Power required | H.P. 5.5 | kW. 4 | Puissance nécessaire |
| Approx. net weight | lb. 4800 | kg. 4000 | Poids net approx. |
| Approx. gross weight | lb. 11000 | kg. 8000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 248 | m ³ 7 | Vol. approx. d'expédition |

TYPE 4 FYA

| | British | Metric | |
|---|---------------------|---------------------|--|
| Table dimensions | in. 78 3/4 x 16 1/8 | mm. 2000 x 410 | Dimensions de table |
| Table travel: | | | Course de la table: |
| longitudinal | in. 42 | mm. 1065 | longitudinale |
| cross | in. 12 3/4 | mm. 400 | transversale |
| vertical | in. 14 1/4 | mm. 360 | verticale |
| Vertical travel of milling head | in. 5 7/8 | mm. 150 | Course verticale de la tête de brochage |
| Spindle taper: ISA | | | Broche: cône ISA |
| Max. height of spindle nose over table | in. 20 1/8 | mm. 510 | Hauteur max. du nez de broche au-dessus de la table |
| 21 spindle speeds | | r.p.m. 18-1300 i/m. | 21 vitesses de broche |
| 32 table feeds: | | | 32 avances de table: |
| longitudinal | in./min. 1/32-3/4 | mm/min. 12-101 | longitudinales |
| cross | in./min. 3/8-25 3/4 | mm/min. 9-708 | transversales |
| vertical | in./min. 1/4-12 7/8 | mm/min. 6-503 | verticales |
| Power required | H.P. 10 | kW. 7.5 | Puissance nécessaire |
| Approx. net weight | lb. 11000 | kg. 5000 | Poids net approx. |
| Approx. gross weight | lb. 13700 | kg. 6200 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 318 | m ³ 9 | Vol. approx. d'expédition |

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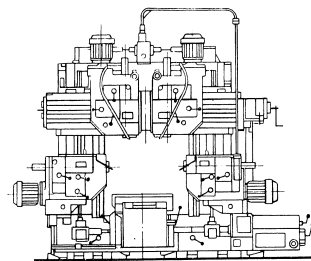
**TWO SPINDLE
PLANER
MILLING
MACHINE**

TYPE FBB - 45

**FRAISEUSE
LONGITUDINALE
A DEUX
BROCHES**

| | British | Metric | |
|--|-----------------------|-----------------|---|
| Table dimensions | | | Dimensions de table |
| Longitudinal table travel | in. 72 1/8 : 17 3/4 | mm. 1820 : 450 | Couree longitudinale de la table |
| Distance between two spindle noses : min. | in. 11 3/4 | mm. 300 | Distance entre les deux nez de broches : min. |
| max. | in. 23 5/8 | mm. 600 | max. |
| Distance between spindle centre and table : min. | in. 4 1/2 | mm. 115 | Distance entre centre de broche et table : min. |
| max. | in. 12 3/4 | mm. 400 | max. |
| 12 spindle speeds | r.p.m. 20-360 | mm/min. 375-475 | 12 vitesses de broche |
| 12 longitudinal table feeds | in./min. 1 1/8-18 3/4 | mm/min. 375-475 | 12 avances longitudinales de table |
| Rapid table traverse | in./min. 147 5/8 | mm/min. 3750 | Avance rapide de la table |
| Power required | H.P. 25.8 | KW. 19 | Puissance nécessaire |
| Approx. net weight | lb. 17000 | kg. 7700 | Poids net approx. |
| Approx. gross weight | lb. 20960 | kg. 9500 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 863 | m³ 24.5 | Vol. approx. d'expédition |

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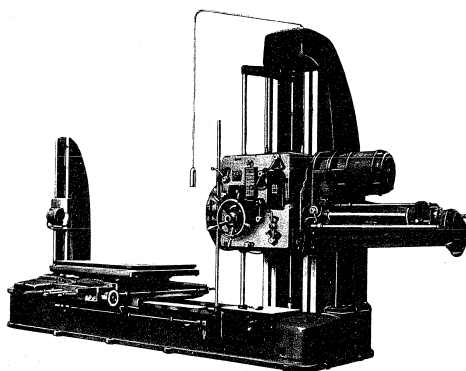


**FOUR SPINDLE
PLANER
MILLING
MACHINE**

TYPE FBC - 90

**FRAISEUSE
LONGITUDINALE
A QUATRE
BROCHES**

| | British | Metric | |
|---|----------------------|-----------------|---|
| Table dimensions | | | Dimensions de table |
| Longitudinal table travel | in. 118 1/8 : 35 1/8 | mm. 3000 : 900 | Couree longitudinale de la table |
| Distance between vertical spindle nose and table : min. | in. 39 3/8 | mm. 1000 | Distance entre nez de broche verticale et table : min. |
| max. | in. 57 7/8 | mm. 1500 | max. |
| Distance between horizontal spindle centres : min. | in. 31 1/2 | mm. 800 | Distance entre axes de broches horizontales et table : min. |
| max. | in. 3 | mm. 75 | max. |
| Distance between vertical spindle noses : min. | in. 42 3/8 | mm. 1075 | Distance entre nez de broches verticales : min. |
| max. | in. 25 5/8 | mm. 675 | max. |
| Min. distance between vertical spindle centres | in. 17 3/4 | mm. 450 | Distance min. entre axes de broches verticales |
| Distance between columns | in. 49 1/4 | mm. 1250 | Distance entre montants |
| Headstock swivel angle | 30° | | Angle d'inclinaison de la poupée de tête |
| 12 spindle speeds | r.p.m. 47.5-600 | mm/min. 9.5-475 | 12 vitesses de broche |
| 12 headstock feeds | in./min. 3/8-18 3/4 | mm/min. 9.5-475 | 12 avances de la poupée de tête |
| 18 table feeds | in./min. 3/4-37 3/8 | mm/min. 18-950 | 18 avances de table |
| Power required | H.P. 102 | KW. 75 | Puissance nécessaire |
| Approx. net weight | lb. 68300 | kg. 31000 | Poids net approx. |
| Approx. gross weight | lb. 79300 | kg. 36000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 1890 | m³ 45 | Vol. approx. d'expédition |



HORIZONTAL BORING AND MILLING MACHINE

TYPE CWC

ALÉSEUSE FRAISEUSE HORIZONTALE

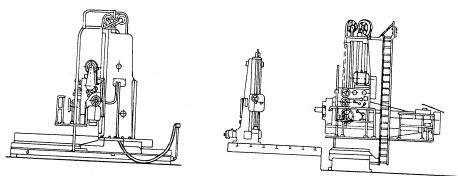
| | British | Metric | |
|--|------------------------|----------------|---|
| Spindle dia. | in. 3 1/4 | mm. 80 | Dia. de broche |
| Max. boring dia. | in. 17 3/4 | mm. 450 | Dia. max. d'alésage |
| Total travel of spindle | in. 27 5/8 - 15 3/4 | mm. 700 - 400 | Course totale de la broche |
| Max. distance between spindle centre and table | in. 33 1/2 | mm. 850 | Distance max. entre axe de broche et table |
| Max. distance between faceplate and steady | in. 86 5/8 | mm. 2200 | Distance max. entre plateau et lunette fixe |
| Table dimensions | in. 43 1/4 x 35 1/2 | mm. 1100 x 900 | Dimensions de table |
| Longitudinal table travel | in. 39 3/8 | mm. 1000 | Course longitudinale de la table |
| Cross travel of table | in. 33 1/2 | mm. 850 | Course transversale de la table |
| 15 spindle speeds | r.p.m. 15-315 t/m. | | 15 vitesses de broche |
| 12 faceplate speeds | r.p.m. 15-300 t/m. | | 12 vitesses de plateau |
| 125 spindle feeds | in./r. 0.00031-0.47343 | mm/r. 0.008-12 | 125 avances de broche |
| Power required | H.P. 6 | kW. 4.4 | Puissance nécessaire |
| Approx. net weight | lb. 18800 | kg. 9000 | Poids net approx. |
| Approx. gross weight | lb. 23100 | kg. 10500 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 610 | m³ 17.3 | Vol. approx. d'expédition |

TYPE HWC

| | British | Metric | |
|--|------------------------|-----------------|---|
| Spindle dia. | in. 4 3/8 | mm. 110 | Dia. de broche |
| Max. boring dia. | in. 25 5/8 | mm. 650 | Dia. max. d'alésage |
| Total travel of spindle | in. 33 1/2 | mm. 850 | Course totale de la broche |
| Max. distance between spindle centre and table | in. 51 1/8 | mm. 1300 | Distance max. entre axe de broche et table |
| Max. distance between faceplate and steady | in. 118 1/8 | mm. 3000 | Distance max. entre plateau et lunette fixe |
| Table dimensions | in. 55 1/8 x 47 1/4 | mm. 1400 x 1200 | Dimensions de table |
| Longitudinal table travel | in. 61 | mm. 1550 | Course longitudinale de la table |
| Cross travel of table | in. 51 1/4 | mm. 1300 | Course transversale de la table |
| 18 spindle speeds | r.p.m. 8.5-563 t/m. | | 18 vitesses de broche |
| 15 faceplate speeds | r.p.m. 8.5-318 t/m. | | 15 vitesses de plateau |
| 100 spindle feeds | in./r. 0.00088-0.47343 | mm/r. 0.017-12 | 100 avances de broche |
| Power required | H.P. 20.4 | kW. 15 | Puissance nécessaire |
| Approx. net weight | lb. 46000 | kg. 21000 | Poids net approx. |
| Approx. gross weight | lb. 57300 | kg. 26000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 960 | m³ 27.3 | Vol. approx. d'expédition |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



**HORIZONTAL
BORING, DRILLING
AND MILLING
MACHINE
WITH FIXED
BASEPLATE**

TYPE WHA - 125

**ALÉSEUSE
PERCEUSE
FRAISEUSE
HORIZONTALE
AVEC PLAQUE
DE BASE FIXE**

| | British | Metric | |
|--|------------------------|-----------------|--|
| Main spindle dia. | in. 4 7/8 | mm. 125 | Dia. de broche principale |
| High speed spindle dia. | in. 2 | mm. 50 | Dia. de broche à grande vitesse |
| Distance between spindle centres | in. 9 7/8 | mm. 250 | Distance entre centres de broches |
| Main spindle max. boring dia. | in. 33 1/2 | mm. 850 | Broche principale. Dia. max. d'alésage |
| Total travel of main spindle | in. 39 3/8 + 80 5/8 | mm. 1000 + 203 | Course totale de la broche principale |
| Total travel of high speed spindle | in. 11 13/16 | mm. 300 | Course totale de la broche à grande vitesse |
| Distance between main spindle centre and baseplate | in. 61 | mm. 1550 | Distance entre centre de broche principale et plaque de base |
| max. min. | in. 14 3/4 | mm. 375 | max. min. |
| Main spindle speeds, stepless adjustment | r.p.m. 5.25-315 (fin.) | | Vitesse de la broche principale, variation continue |
| High speed spindle speeds, stepless adjustment | r.p.m. 21-1250 (fin.) | | Vitesse de la broche à grande vitesse, variation continue |
| 16 main spindle feeds | in./r. 0.0025-0.1774 | mm/r. 0.064-4.5 | 16 avances de la broche principale |
| 16 high speed spindle feeds | in./r. 0.0053-0.044 | mm/r. 0.14-1.12 | 16 avances de la broche grande vitesse |
| Baseplate dimensions | in. 127 3/4 x 196 7/8 | mm. 3200 x 5000 | Dimensions de la plaque de base |
| Power required | H.P. 21.8 | kW. 16 | Puissance nécessaire |
| Approx. net weight (without baseplate) | lb. 43000 | kg. 19500 | Poids net approx. (sans plaque de base) |
| Approx. gross weight (with baseplate) | lb. 55000 | kg. 25000 | Poids brut approx. (avec plaque de base) |

DRILLING MACHINES

PERCEUSES

7

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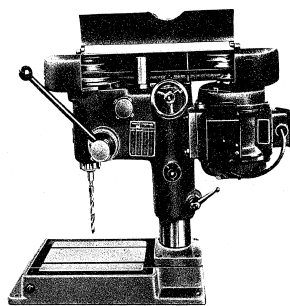
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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



**BENCH
DRILLING
MACHINE**

TYPE WS - 15

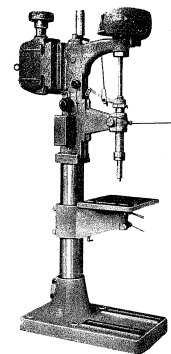
**PERCEUSE
D'ÉTABLI**

| | British | Metric | |
|----------------------------------|---------------------|---------------|--|
| Max. drilling dia. in steel | in. 5/8 | mm. 15 | Dia. max. de perçage, acier |
| Max. drilling depth | in. 3 1/2 | mm. 80 | Profondeur max. de perçage |
| Vertical travel of drilling head | in. 7 1/8 | mm. 180 | Course verticale de la tête de perçage |
| Table dimensions | in. 17 3/4 x 11 3/4 | mm. 450 x 300 | Dimensions de table |
| 4 spindle speeds | r.p.m. 450-3000 | 1/m. | 4 vitesses de broche |
| Spindle taper | Morse No. 2 | | Cône de broche |
| Power required | H.P. 0.68 | kW. 0.5 | Puissance nécessaire |
| Approx. net weight | lb. 305 | kg. 140 | Poids net approx. |
| Approx. gross weight | lb. 385 | kg. 180 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 23 | m³ 0.65 | Vol. approx. d'expédition |

TYPE WSA - 6

| | British | Metric | |
|----------------------------------|--------------------|---------------|--|
| Max. drilling dia. in steel | in. 1/4 | mm. 6 | Dia. max. de perçage, acier |
| Max. drilling depth | in. 2 3/4 | mm. 70 | Profondeur max. de perçage |
| Vertical travel of drilling head | in. 12 5/8 | mm. 320 | Course verticale de la tête de perçage |
| Table dimensions | in. 12 3/4 x 9 1/4 | mm. 322 x 235 | Dimensions de table |
| 12 spindle speeds | r.p.m. 345-12180 | 1/m. | 12 vitesses de broche |
| Spindle taper | Morse No. 1 | | Cône de broche |
| Power required | H.P. 0.5 | kW. 0.37 | Puissance nécessaire |
| Approx. gross weight | lb. 242 | kg. 110 | Poids brut approx. |
| Approx. net weight | lb. 374 | kg. 170 | Poids net approx. |
| Approx. shipping volume | cu.ft. 21.3 | m³ 0.6 | Vol. approx. d'expédition |

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TYPE WE - 20

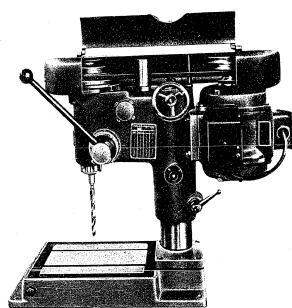
**PILLAR
DRILLING
MACHINE
(SIMPLIFIED
MODEL)**

**PERCEUSE
A COLONNE
(MACHINE
SIMPLIFIÉE)**

| | British | Metric | |
|--|---------------------|---------------|--|
| Max. drilling dia. in steel | in. 3/4 | mm. 20 | Dia. max. de perçage, acier |
| Max. drilling depth | in. 1 1/16 | mm. 27 | Profondeur max. de perçage |
| Max. height of spindle nose over table | in. 23 1/4 | mm. 590 | Hauteur max. du nez de broche au-dessus de la table |
| Height of spindle nose over baseplate | in. 42 3/4 | mm. 1085 | Hauteur max. du nez de broche au-dessus de la plaque de base |
| Max. vertical travel | in. 21 1/4 | mm. 540 | Course verticale de la table |
| Table dimensions | in. 15 3/4 x 11 7/8 | mm. 400 x 300 | Dimensions de table |
| Baseplate dimensions | in. 12 3/4 x 12 | mm. 400 x 300 | Dimensions de la plaque de base |
| 4 spindle speeds | r.p.m. 184-1424 | 1/m. | 4 vitesses de broche |
| Power required | H.P. 2.8 | kW. 2.08 | Puissance nécessaire |
| Approx. net weight | lb. 900 | kg. 450 | Poids net approx. |
| Approx. gross weight | lb. 1850 | kg. 780 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 103 | m³ 2.9 | Vol. d'expédition approx. |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



**BENCH
DRILLING
MACHINE**

TYPE WS - 15

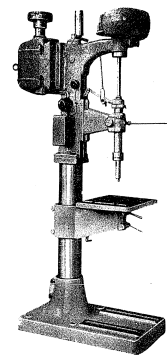
**PERCEUSE
D'ÉTABLI**

| | British | Metric | |
|----------------------------------|------------------------|---------------------|--|
| Max. drilling dia. in steel | in. 5/8 | mm. 15 | Dia. max. de perçage, acier |
| Max. drilling depth | in. 3 1/2 | mm. 90 | Profondeur max. de perçage |
| Vertical travel of drilling head | in. 7 1/8 | mm. 180 | Course verticale de la tête de perçage |
| Table dimensions | in. 17 3/4 x 11 3/4 | mm. 450 x 300 | Dimensions de table |
| 4 spindle speeds | r.p.m. 450-3000 (1 m.) | | 4 vitesses de broche |
| Spindle taper | Morse No. 2 | | Cône de broche |
| Power required | H.P. 0.58 | kW. 0.5 | Puissance nécessaire |
| Approx. net weight | lb. 300 | kg. 140 | Poids net approx. |
| Approx. gross weight | lb. 380 | kg. 180 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 23 | m ³ 0.65 | Vol. approx. d'expédition |

TYPE WSA - 6

| | British | Metric | |
|----------------------------------|-------------------------|--------------------|--|
| Max. drilling dia. in steel | in. 1/8 | mm. 8 | Dia. max. de perçage, acier |
| Max. drilling depth | in. 2 1/4 | mm. 70 | Profondeur max. de perçage |
| Vertical travel of drilling head | in. 12 5/8 | mm. 320 | Course verticale de la tête de perçage |
| Table dimensions | in. 12 3/4 x 9 1/4 | mm. 325 x 235 | Dimensions de table |
| 12 spindle speeds | r.p.m. 345-12180 (1 m.) | | 12 vitesses de broche |
| Spindle taper | Morse No. 1 | | Cône de broche |
| Power required | H.P. 0.5 | kW. 0.37 | Puissance nécessaire |
| Approx. gross weight | lb. 345 | kg. 110 | Poids brut approx. |
| Approx. gross weight | lb. 374 | kg. 170 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 21.2 | m ³ 0.6 | Vol. approx. d'expédition |

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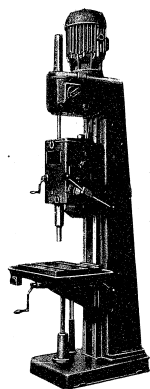
**PILLAR
DRILLING
MACHINE
(SIMPLIFIED
MODEL)**

TYPE WE - 20

**PERCEUSE
A COLONNE
(MACHINE
SIMPLIFIÉE)**

| | British | Metric | |
|--|------------------------|--------------------|--|
| Max. drilling dia. : steel | in. 3/4 | mm. 20 | Dia. max. de perçage : acier |
| cast iron | in. 1 1/16 | mm. 27 | fonte |
| Max. drilling depth | in. 3 5/8 | mm. 143 | Profondeur max. de perçage |
| Max. height of spindle nose over table | in. 23 1/4 | mm. 590 | Hauteur max. du nez de broche au-dessus de la plaque de base |
| Height of spindle nose over baseplate | | | Hauteur max. du nez de broche au-dessus de la plaque de base |
| max. | in. 42 3/4 | mm. 1085 | max. |
| min. | in. 21 7/8 | mm. 550 | min. |
| Vertical table travel | in. 21 1/4 | mm. 540 | Course verticale de la table |
| Table dimensions | in. 15 3/4 x 11 7/8 | mm. 400 x 300 | Dimensions de table |
| Baseplate dimensions | in. 15 3/4 x 15 | mm. 400 x 380 | Dimensions de la plaque de base |
| 6 spindle speeds | r.p.m. 184-1424 (1 m.) | | 6 vitesses de broche |
| Power required | H.P. 2.8 | kW. 2.06 | Puissance nécessaire |
| Approx. net weight | lb. 980 | kg. 450 | Poids net approx. |
| Approx. gross weight | lb. 1650 | kg. 750 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 103 | m ³ 2.9 | Vol. d'expédition approx. |

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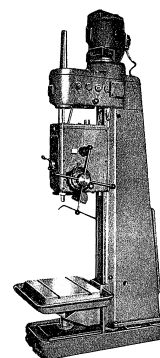
COLUMN
DRILLING MACHINE

TYPE WKA - 25

PERCEUSE
A COLONNE

| | British | Metric | |
|--|-----------------------|--------------------|--|
| Max. drilling dia.: | | | Dia. max. de perçage: |
| steel | in. 1 | mm. 25 | acier |
| cast iron | in. 1 3/8 | mm. 35 | fonte |
| Max. drilling depth | in. 7 7/8 | mm. 200 | Profondeur max. de perçage |
| Height of spindle nose over table | in. 0-25 5/8 | mm. 0-650 | Hauteur du nez de broche au-dessus de la table |
| Distance between spindle centre and column | in. 11 | mm. 280 | Distance entre axe de broche et colonne |
| Table dimensions | in. 19 5/8 x 12 3/4 | mm. 500 x 400 | Dimensions de table |
| 8 spindle speeds | r.p.m. 80-1000 | r.p.m. 80-1000 | 8 vitesses de broche |
| 6 spindle feeds | in./r. 0.00247-0.0347 | mm/rev. 0.063-0.63 | 6 avances de broche |
| Spindle taper | Morse N° 3 | | Cône de broche |
| Power required | H.P. 4 | kW. 3 | Puissance nécessaire |
| Approx. net weight | lb. 1760 | kg. 800 | Poids net approx. |
| Approx. gross weight | lb. 2000 | kg. 900 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 62 | m³ 4.4 | Vol. approx. d'expédition |

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COLUMN
DRILLING MACHINE

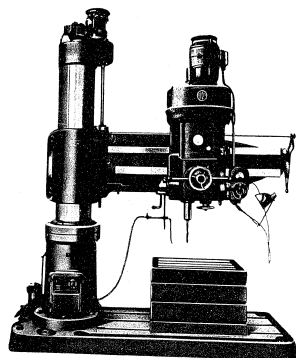
TYPE WKA - 40

PERCEUSE
A COLONNE

| | British | Metric | |
|--|-----------------------|-----------------|--|
| Max. drilling dia.: | | | Dia. max. de perçage: |
| steel | in. 1 1/2 | mm. 40 | acier |
| cast iron | in. 2 1/8 | mm. 55 | fonte |
| Max. drilling depth | in. 11 | mm. 280 | Profondeur max. de perçage |
| Height of spindle nose over table | in. 0-20 1/8 | mm. 0-750 | Hauteur du nez de broche au-dessus de la table |
| Distance between spindle centre and column | in. 14 | mm. 355 | Distance entre axe de broche et colonne |
| Table dimensions | in. 24 3/4 x 19 5/8 | mm. 630 x 500 | Dimensions de table |
| 16 spindle speeds | r.p.m. 25-1250 | r.p.m. 25-1250 | 16 vitesses de broche |
| 6 spindle feeds | in./r. 0.00393-0.0394 | mm/rev. 0.1-0.9 | 6 avances de broche |
| Spindle taper | Morse N° 5 | | Cône de broche |
| Power required | H.P. 7.5 | kW. 5.5 | Puissance nécessaire |
| Approx. net weight | lb. 3200 | kg. 1500 | Poids net approx. |
| Approx. gross weight | lb. 4800 | kg. 2200 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 154 | m³ 4.5 | Vol. approx. d'expédition |

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WARSZAWA, P. O. BOX 442
ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



**RADIAL DRILLING
MACHINE**

TYPE WR - 1.6

**PERCEUSE
RADIALE**

| | British | Metric | |
|---|--|---------------------------|---|
| Max. drilling dia. :
steel
cast iron | in. 2 1/8
in. 2 3/4 | mm. 55
mm. 70 | Dia. max. de perçage :
acier
fonte |
| Max. drilling depth | in. 12 3/4 | mm. 320 | Profondeur max. de perçage |
| Drilling spindle radius :
max.
min. | in. 53 3/8
in. 24 | mm. 1610
mm. 610 | Rayon de la broche de perçage :
max.
min. |
| Height of spindle nose over baseplate :
max.
min. | in. 55 1/8
in. 15 1/8 | mm. 1410
mm. 480 | Hauteur du nez de broche au-dessus de la plaque de base :
max.
min. |
| Vertical travel of the arm
Baseplate dimensions | in. 23 5/8
in. 92 1/4 x 37 5/8 | mm. 600
mm. 2420 x 955 | Course verticale du bras
Dimensions de la plaque de base |
| 36 spindle speeds
18 spindle feeds | r.p.m. 30-1700 (11)
in./r. 0.00118-0.0472 | mm/r. 0.03-1.3 | 36 vitesses de broche
18 avances de broche |
| Spindle taper | Morse n° 5 | | Cône de broche |
| Power required | H.P. 7.5 | kW. 5.5 | Puissance nécessaire |
| Approx. net weight | lb. 9000 | kg. 4200 | Poids net approx. |
| Approx. gross weight | lb. 12500 | kg. 6100 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 342 | m³ 9.7 | Vol. approx. d'expédition |

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**RADIAL DRILLING
MACHINE**

TYPE WR - 2

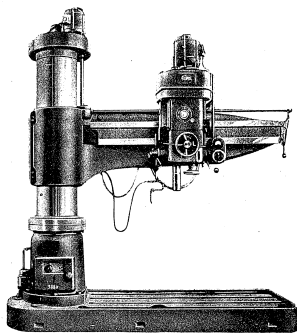
**PERCEUSE
RADIALE**

| | British | Metric | |
|---|--|----------------------------|---|
| Max. drilling dia. :
steel
cast iron | in. 2 1/8
in. 2 3/4 | mm. 55
mm. 70 | Dia. max. de perçage :
acier
fonte |
| Max. drilling depth | in. 15 3/4 | mm. 390 | Profondeur max. de perçage |
| Drilling spindle radius :
max.
min. | in. 85
in. 25 5/8 | mm. 2160
mm. 650 | Rayon de la broche de perçage :
max.
min. |
| Height of spindle nose over baseplate :
max.
min. | in. 70 7/8
in. 26 3/8 | mm. 1800
mm. 670 | Hauteur du nez de broche au-dessus de la plaque de base :
max.
min. |
| Vertical travel of the arm
Baseplate dimensions | in. 30 3/4
in. 120 x 41 3/8 | mm. 760
mm. 3050 x 1050 | Course verticale du bras
Dimensions de la plaque de base |
| 36 spindle speeds
18 spindle feeds | r.p.m. 30-1700 (11)
in./r. 0.00118-0.0472 | mm/r. 0.03-1.3 | 36 vitesses de broche
18 avances de broche |
| Spindle taper | Morse n° 5 | | Cône de broche |
| Power required | H.P. 8.8 | kW. 6.5 | Puissance nécessaire |
| Approx. net weight | lb. 14100 | kg. 6460 | Poids net approx. |
| Approx. gross weight | lb. 18000 | kg. 8200 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 550 | m³ 15.5 | Vol. approx. d'expédition |

TYPE WR - 2.5

| | British | Metric | |
|---|--|---------------------|---|
| Max. drilling dia. :
steel
cast iron | in. 3 1/8
in. 4 | mm. 80
mm. 100 | Dia. max. de perçage :
acier
fonte |
| Max. drilling depth | in. 15 3/4 | mm. 400 | Profondeur max. de perçage |
| Drilling spindle radius :
max.
min. | in. 112 1/4
in. 30 3/8 | mm. 2850
mm. 770 | Rayon de la broche de perçage :
max.
min. |
| Height of spindle nose over baseplate :
max.
min. | in. 87 7/8
in. 35 3/8 | mm. 2230
mm. 930 | Hauteur du nez de broche au-dessus de la plaque de base :
max.
min. |
| Vertical travel of the arm
Baseplate dimensions | in. 158 1/4 x 55 1/8 | mm. 4050 x 1400 | Course verticale du bras
Dimensions de la plaque de base |
| 36 spindle speeds
18 spindle feeds | r.p.m. 19-1320 (11)
in./r. 0.0080-0.125 | mm/r. 0.15-3.2 | 36 vitesses de broche
18 avances de broche |
| Spindle taper | Morse n° 5 | | Cône de broche |
| Power required | H.P. 13.6 | kW. 10 | Puissance nécessaire |
| Approx. net weight | lb. 25100 | kg. 11400 | Poids net approx. |
| Approx. gross weight | lb. 31000 | kg. 14100 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 690 | m³ 23 | Vol. approx. d'expédition |

70

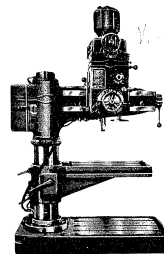
ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWARADIAL
DRILLING
MACHINE

TYPE WR - 3,2

PERCEUSE
RADIALE

| | British | Metric | |
|--|---------------------|------------------|---|
| Max. drilling dia.: | | | |
| steel | in. 3 1/8 | mm. 80 | Dia. max. de perçage: |
| cast iron | in. 4 | mm. 100 | acier |
| Max. drilling depth | in. 15 3/4 | mm. 400 | fonte |
| Drilling spindle radius: | | | Profondeur max. de perçage |
| max. | in. 127 1/2 | mm. 3450 | Rayon de la broche de perçage: |
| min. | in. 30 3/8 | mm. 770 | max. |
| Height of spindle nose over baseplate: | | | min. |
| max. | in. 87 7/8 | mm. 2230 | Hauteur du nez de la broche au-dessus de la plaque de base: |
| min. | in. 33 5/8 | mm. 850 | max. |
| Vertical travel of the arm | in. 185 | mm. 4700 | min. |
| Baseplate dimensions | | | Course verticale du bras |
| 36 spindle speeds | | | Dimensions de la plaque de base |
| 16 spindle feeds | r.p.m. 18-1320 1/2 | mm/min. 0.15-3.2 | 36 vitesses de broche |
| Spindle taper | in.-r. 0.0005-0.125 | Morse N° 5 | 16 avances de broche |
| Power required | H.P. 13.6 | KW. 10 | Cône de broche |
| Approx. net weight | lb. 31000 | kg. 14100 | Puissance nécessaire |
| Approx. gross weight | lb. 37000 | kg. 17000 | Poids net approx. |
| Approx. shipping volume | cu ft. 1000 | m³ 30 | Poids brut approx. |
| | | | Vol. approx. d'expédition |

71

RADIAL DRILLING
MACHINE WITH
VERTICALLY
ADJUSTABLE
TABLE

TYPE WRS - 25/08

PERCEUSE
RADIALE AVEC
DÉPLACEMENT
VERTICAL
DE LA TABLE

| | British | Metric | |
|--|------------------------|------------------|--|
| Max. drilling dia.: | | | |
| steel | in. 1 | mm. 25 | Dia. max. de perçage: |
| cast iron | in. 1 3/16 | mm. 30 | acier |
| Max. drilling depth | in. 6 1/4 | mm. 150 | fonte |
| Drilling spindle radius: | | | Profondeur max. de perçage |
| max. | in. 31 1/2 | mm. 800 | Rayon de la broche de perçage: |
| min. | in. 11 7/8 | mm. 300 | max. |
| Height of spindle nose over table | in. 3 3/8-10 3/4 | mm. 10-200 | min. |
| Height of spindle nose over baseplate | in. 30 3/4-37 | mm. 780-940 | Hauteur du nez de la broche au-dessus de la table |
| Vertical table travel | in. 13 | mm. 330 | Course verticale de la table |
| Angle of table swivel about the column | | 180° | Angle de pivotement de la table autour de la colonne |
| Table dimensions | n. 30 3/4 - 17 3/4 | mm. 780 - 450 | Dimensions de la table |
| Baseplate dimensions | in. 55 1/8 - 27 1/2 | mm. 1400 - 700 | Dimensions de la plaque de base |
| Spindle speeds, stepless adjustment | r.p.m. 60-2880 1/2 | mm/min. 0.08-0.8 | Vitesses de broche, variation continue |
| 6 spindle feeds | in.-r. 0.00350-0.03262 | S.W. 3-3 | 6 avances de broche |
| Power required | H.P. 2.1 | KW. 1.5 | Puissance nécessaire |
| Approx. net weight | lb. 2430 | kg. 1100 | Poids net approx. |
| Approx. gross weight | lb. 2320 | kg. 1050 | Poids brut approx. |
| Approx. shipping volume | cu ft. 177 | m³ 5 | Vol. approx. d'expédition |

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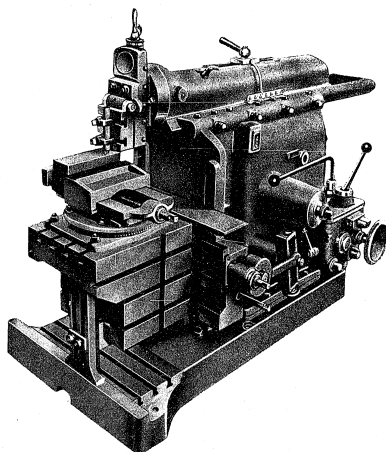
SHAPING AND
PLANING MACHINES

LIMEUSES
ET RABOTEUSES

8
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4
5

74

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



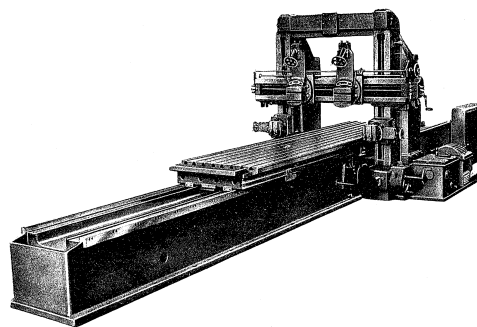
SHAPER

TYPE SP - 600

ÉTAU-LIMEUR

| | British | Metric | |
|-------------------------|---------------------|----------------------------|--------------------------------|
| Ram stroke : | | | Course du coulisseau : |
| min. | in. 3 1/8 | mm. 80 | min. |
| max. | in. 34 | mm. 610 | max. |
| Horizontal table travel | in. 31 1/2 | mm. 800 | Course horizontale de la table |
| Vertical table travel | in. 13 3/4 | mm. 350 | Course verticale de la table |
| Table dimensions | in. 23 5/8 x 19 3/4 | mm. 600 x 500 | Dimensions de table |
| 8 mm speeds | | | 8 vitesses de coulisseau |
| Power required | H.P. 7.5 | stroke/min. 9-102 coups/m. | Puissance nécessaire |
| Approx. net weight | lb. 6900 | kg. 5.5 | Poids net approx. |
| Approx. gross weight | lb. 11000 | kg. 4000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 212 | m³ 6 | Vol. approx. d'expédition |

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DOUBLE COLUMN
PLANING
MACHINE

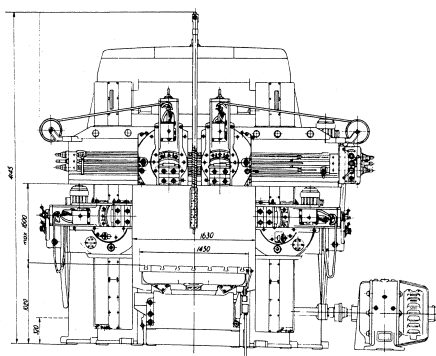
TYPE SWD - 125

RABOTEUSE
A DEUX
COLONNES

| | British | Metric | |
|-------------------------------------|--|--------------------|--|
| Planing width | in. 49 1/4 | mm. 1250 | Largeur de rabotage |
| Planing length | in. 118 1/8-239 1/4 | mm. 3000-6000 | Longueur de rabotage |
| Planing height | in. 39 3/8 | mm. 1000 | Hauteur de rabotage |
| 3 table speeds | in./min. 334 1/4
472 3/8-708 3/4
in./min. 1063 | m/min. 8-12-18 | 3 vitesses de table |
| Return table speed | | m/min. 27 | Vitesse de retour de la table |
| Feeds of main tool blocks : | | | Avance des porte-outils principaux : |
| horizontal | in./stroke 0.0318-0.215 | mm./course 0.8-5.4 | horizontal |
| vertical | in./stroke 0.0027-0.189 | mm./course 0.6-4.8 | vertical |
| Vertical feed of side tool blocks | in./stroke 0.0079-0.159 | mm./course 0.2-4 | Avance verticale des porte-outils latéraux |
| Rapid power traverse of cross slide | in./min. 58 3/8 | m/min. 0.73 | Retour rapide du chariot transversal |
| Power required: electric motor | H.P. 22.4 | kW. 16.5 | Puissance nécessaire : moteurs électriques |
| Electromagnetic clutch | H.P. 0.4 | kW. 0.3 | Embrayage électromagnétique |
| Approx. net weight | lb. 37000-32330 | kg. 16800-23700 | Poids net approx. |
| Approx. gross weight | lb. 44080-37200 | kg. 20000-30900 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 1000-1870 | m³ 28.5-53 | Vol. approx. d'expédition |

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METALEXPORT - WARSZAWA

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA**DOUBLE COLUMN
PLANING
MACHINE****TYPE HWD - 160****RABOTEUSE
A DOUBLE
COLONNE**

| | British | Metric | |
|---------------------------------------|------------------------------|-----------------------|---|
| Planing width | in. 63 | mm. 1600 | Largueur de rabotage |
| Planing length | m. 118 1/8-326 1/4 | mm. 3000-8000 | Longueur de rabotage |
| Planing height | in. 63 | mm. 1600 | Hauteur de rabotage |
| Table speeds, stepless adjustment | in./min. 12.5-18
117-3/16 | mm/min. 5-47 | Vitesse de table, variation continue |
| 20 feeds of main tool blocks: | | | 20 avances des porte-outils principaux: |
| horizontal | in./stroke 0.0039-1.142 | mm/course 0.1-30 | horizontales |
| vertical | in./stroke 0.0039-0.59 | mm/course 0.08-15 | verticales |
| 20 vertical feeds of side tool blocks | in./stroke 0.0039-1.181 | mm/course 0.1-30 | 20 avances verticales des porte-outils latéraux |
| Electric motors (Leonard system) | H. P. 90 | kW. 66 | Moteurs électriques (système Leonard) |
| Approx. net weight | lb. 99000-134000 | kg. 45000-61000 | Poids net approx. |
| Approx. gross weight | lb. 120000-169000 | kg. 55000-78000 | Poids brut approx. |
| Approx. shipping volume | cu. ft. 8470-3000 | m ³ 240-85 | Vol. approx. d'emballage |

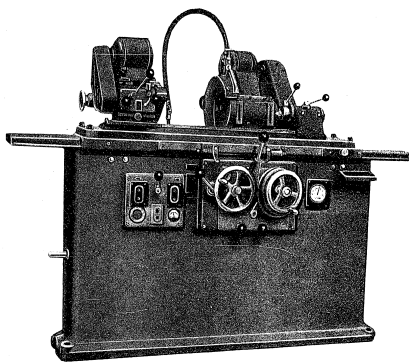
GRINDING MACHINES

RECTIFIEUSES

3
0
1
2
1

78

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



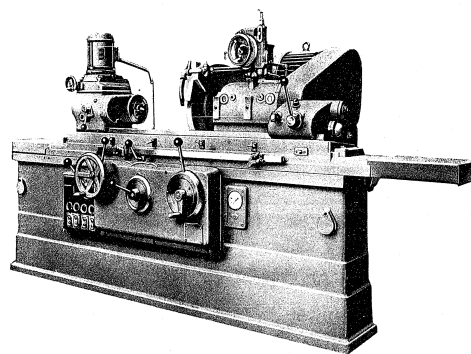
UNIVERSAL
CYLINDRICAL
GRINDING
MACHINE

TYPE 1 SMH

RECTIFIEUSE
UNIVERSELLE
POUR PIÈCES
CYLINDRIQUES

| | British | Metric | |
|--|------------------------|-------------------|--|
| Max. dia. workpiece clamped in chuck | in. 4 3/8 | mm. 110 | Dia. max. de pièce serrée au mandrin (pièce mûlle) |
| Dia. of workpiece to be machined in steady | in. 3 1/2 | mm. 90 | Dia. max. de pièce à usiner (avec mandrin) |
| Max. grinding dia. | in. 7 7/8 | mm. 200 | Dia. max. de meulage |
| Grinding length between centres | in. 23 5/8 | mm. 600 | Longueur de meulage entre centres |
| Grinding wheel (dia. and width) | in. 9 7/8 x 1 1/8 | mm. 250 x 30 | Moule (dia. et largeur) |
| Grinding wheel speed | r.p.m. 3250 (1m) | | Vitesse de meule |
| 12 workpiece speeds | r.p.m. 63-500 (1m) | | 12 vitesses de la pièce |
| 8 table feeds | in./min. 9 7/8-133 1/2 | mm./min. 250-3300 | 8 avances de table |
| Power required | H.P. 1.1 | kW. 3 | Puissance nécessaire |
| Approx. net weight | lb. 3300 | kg. 1500 | Poids net approx. |
| Approx. gross weight | lb. 3880 | kg. 1800 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 208 | m³ 5.9 | Vol. approx. d'expédition |

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CYLINDRICAL
GRINDING
MACHINE

TYPE SJW - 1000

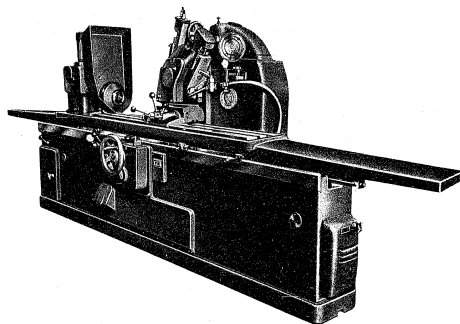
MACHINE A
RECTIFIER
LES PIÈCES
CYLINDRIQUES

| | British | Metric | |
|---------------------------------------|--------------------|-------------------|---|
| Grinding dia. | in. 11 3/4 | mm. 300 | Dia. de rectification |
| Grinding length between centres | in. 39 3/8 | mm. 1000 | Longueur de rectification entre centres |
| Max. weight of workpiece to be ground | lb. 440 | kg. 200 | Poids max. de la pièce à rectifier |
| Grinding wheel (dia. and width) | in. 19 3/4 x 2 | mm. 500 x 50 | Moule (dia. et largeur) |
| Workpiece speeds, stepless adjustment | r.p.m. 18-180 (1m) | | Vitesse de pièce, variation continue |
| Table feeds, stepless adjustment | in./min. 7 7/8-315 | mm./min. 200-8000 | Avance de table, variation continue |
| Power required | H.P. 13.6 | kW. 10 | Puissance nécessaire |
| Approx. net weight | lb. 7940 | kg. 3600 | Poids net approx. |
| Approx. gross weight | lb. 8240 | kg. 4000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 303 | m³ 10 | Vol. approx. d'expédition |

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METALEXPORT - WARSZAWA

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



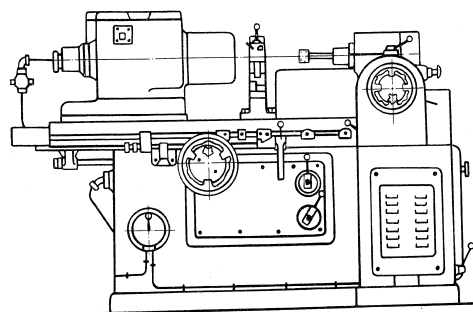
SPLINE SHAFT
GRINDING
MACHINE

TYPE ZWA - 150

RECTIFIEUSE
POUR ARBRES
CANNELES

| | British | Metric | |
|-------------------------------|----------------------------|---------------------|--------------------------------|
| Grinding dia. | in. 3 1/8 | mm. 80 | Dia. de rectification |
| Max. distance between centres | in. 89 1/8 | mm. 1200 | Distance max. entre centres |
| Max. grinding length | in. 51 1/8 | mm. 1300 | Longueur max. de rectification |
| Table speeds | in./min. 29 3/8
320 0/8 | m/min. 1-10 | Vitesse de table |
| Power required | H.P. 6.8 | | Puissance nécessaire |
| Approx. net weight | lb. 11220 | kg. 5100 | Poids net approx. |
| Approx. gross weight | lb. 13400 | kg. 6100 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 580 | m ³ 14.7 | Vol. approx. d'expédition |

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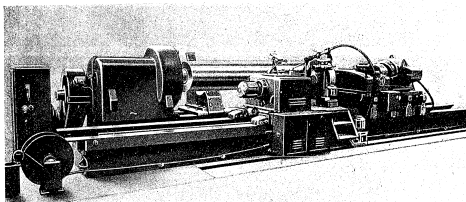


HYDRAULIC
INTERNAL
GRINDING
MACHINE

TYPE SOA - 100

MACHINE
HYDRAULIQUE
A RECTIFIER
LES INTERIEURS

| | British | Metric | |
|---|----------------|------------------|---|
| Dia. of bore to be ground | in. 1/2-4 | mm. 13-100 | Dia. d'aisiage à rectifier |
| Max. length of bore to be ground | in. 5 1/8 | mm. 130 | Longueur max. d'aisiage à rectifier |
| Max. outer dia. of workpiece to be ground with guard | in. 9 1/2 | mm. 240 | Dia. externe max. de la pièce à rectifier, avec garde |
| Max. outer dia. of workpiece to be ground without guard | in. 19 3/4 | mm. 500 | Dia. externe max. de la pièce à rectifier, sans garde |
| Max. workhead inclination | 10° | | Inclinaison max. de la tête d'aisiage |
| 4 workpiece speeds | r.p.m. 130-580 | m/min. 0-850 | 4 vitesses de la pièce |
| Table feeds, stepless adjustment | in./min. 0-315 | mm/min. 0-800 | Avances de table, variation continue |
| Grinding wheel dia. | in. 3/8-3 1/8 | mm. 10-80 | Dia. de meule |
| Max. grinding wheel width | in. 2 | mm. 50 | Largeur max. de meule |
| Power required | H.P. 4.75 | kW. 3.5 | Puissance nécessaire |
| Approx. net weight | lb. 4000 | kg. 1800 | Poids net approx. |
| Approx. gross weight | lb. 5380 | kg. 2400 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 142 | m ³ 4 | Vol. approx. d'expédition |



ROLL GRINDING MACHINE

TYPE SHA - 90

MACHINE A RECTIFIER LES CYLINDRES

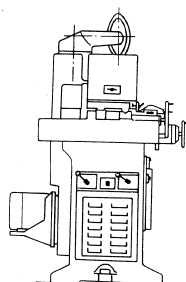
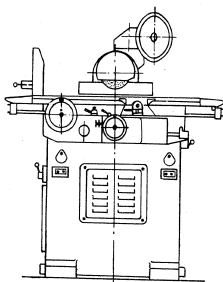
| | British | Metric | |
|--------------------------------------|--------------------------|--------------------|---|
| Height of centres | in. 25 5/8 | mm. 650 | Hauteur de centres |
| Grinding length between centres | in. 238 1/4 | mm. 6000 | Longueur de rectification entre centres |
| Max. dia. of roll to be ground | in. 25 1/2 | mm. 800 | Dia. max. du cylindre à rectifier |
| Max. weight of roll to be ground | lb. 44000 | kg. 20000 | Poids max. du cylindre à rectifier |
| 8 wheelhead feeds per 1 rev. of roll | in./r. 3 1/8-59 7/8 | mm/r. 80-1520 | 8 avances de la tête d'usinage par tour du cylindre |
| 6 roll speeds | r.p.m. 4-24 (1/min.) | | 6 vitesses de meule |
| 3 grinding wheel speeds | r.p.m. 685-1305 (1/min.) | | 3 vitesses de meule |
| Power required | H.P. 21.5 | kW. 38 | Puissance nécessaire |
| Approx. net weight | lb. 110000 | kg. 50000 | Poids net approx. |
| Approx. gross weight | lb. 125400 | kg. 57000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 3880 | m ³ 110 | Vol. approx. d'expédition |

TYPE SHA - 125

| | British | Metric | |
|--------------------------------------|--------------------------|--------------------|---|
| Height of centres | in. 33 1/2 | mm. 850 | Hauteur de centres |
| Grinding length between centres | in. 238 1/4 | mm. 6000 | Longueur de rectification entre centres |
| Max. dia. of roll to be ground | in. 49 1/8 | mm. 1250 | Dia. max. du cylindre à rectifier |
| Max. weight of roll to be ground | lb. 68000 | kg. 30000 | Poids max. du cylindre à rectifier |
| 8 wheelhead feeds per 1 rev. of roll | in./r. 3 1/8-59 7/8 | mm/r. 80-1520 | 8 avances de la tête d'usinage par tour du cylindre |
| 6 roll speeds | r.p.m. 3-18 (1/min.) | | 6 vitesses de meule |
| 3 grinding wheel speeds | r.p.m. 685-1305 (1/min.) | | 3 vitesses de meule |
| Power required | H.P. 111 | kW. 82 | Puissance nécessaire |
| Approx. net weight | lb. 118000 | kg. 54000 | Poids net approx. |
| Approx. gross weight | lb. 129400 | kg. 59000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 4240 | m ³ 120 | Vol. approx. d'expédition |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



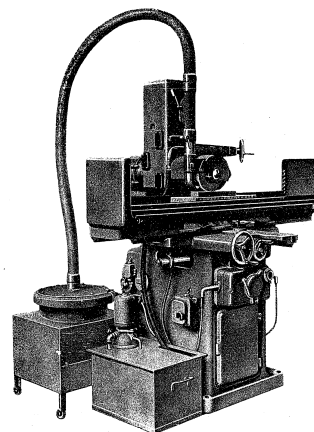
HORIZONTAL SURFACE GRINDING MACHINE

TYPE SPA - 15

RECTIFIEUSE HORIZONTALE A SURFACES PLANES

| | British | Metric | |
|--|--------------------|--------------------|--|
| Grinding length | in. 18 7/8 | mm. 480 | Longueur de rectification |
| Grinding width | in. 8 1/4 | mm. 160 | Largeur de rectification |
| Table dimensions | in. 17 3/4 x 5 7/8 | mm. 450 x 150 | Dimensions de table |
| Max. height of spindle centre over table | in. 11 7/8 | mm. 300 | Hauteur max. du centre de broche au-dessus de la table |
| Table speeds, stepless adjustment | in./min. 0-630 | mm/min. 0-16 | Vitesse de table, variation continue |
| Cross feeds, stepless adjustment | in./min. 0-0.0042 | mm/min. 0-0.5 | Avances transversales, variation continue |
| Grinding wheel (dia. and width) | in. 7 7/8 x 3/4 | mm. 200 x 20 | Meule (dia. et largeur) |
| Power required | H.P. 3.1 | kW. 2.3 | Puissance nécessaire |
| Approx. net weight | lb. 2800 | kg. 1260 | Poids net approx. |
| Approx. gross weight | lb. 3050 | kg. 1400 | Poids brut approx. |
| Approx. shipping volume | cu. ft. 110 | m ³ 3.5 | Vol. approx. d'expédition |

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HORIZONTAL SURFACE GRINDING MACHINE

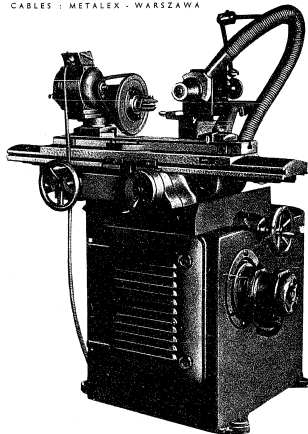
TYPE SPH - 1

RECTIFIEUSE HORIZONTALE A SURFACES PLANES

| | British | Metric | |
|--|---------------------|--------------------|---|
| Grinding length | in. 33 5/8 | mm. 600 | Longueur de rectification |
| Grinding width | in. 7 7/8 | mm. 200 | Largeur de rectification |
| Cross travel of table | in. 8 5/8 | mm. 220 | Croûpe transversale de la table |
| Max. height of spindle nose over table | in. 13 3/4 | mm. 350 | Hauteur max. du nez de broche au-dessus de la table |
| Cross feed of table | in. 0.00236-0.07674 | mm. 0.06-2 | Avance transversale de la table |
| Grinding wheel (dia. and width) | in. 7 7/8 x 3/4 | mm. 200 x 20 | Meule (dia. et largeur) |
| Power required | H.P. 3 | kW. 2.2 | Puissance nécessaire |
| Approx. net weight | lb. 2790 | kg. 1260 | Poids net approx. |
| Approx. gross weight | lb. 3090 | kg. 1400 | Poids brut approx. |
| Approx. shipping volume | cu. ft. 103 | m ³ 2.9 | Vol. approx. d'expédition |

86

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



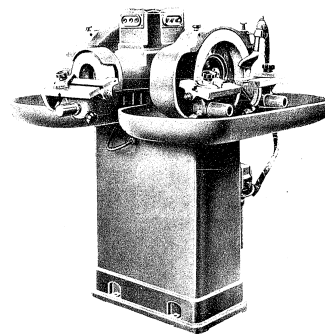
**UNIVERSAL
TOOL AND
CUTTER
GRINDING
MACHINE**

TYPE 1-SAB

**MACHINE
UNIVERSELLE A
AFFUTER LES
OUTILS ET LES
FRAISES**

| | British | Metric | |
|-------------------------------------|-----------------------|---------------|----------------------------------|
| Table dimensions | | | Dimensions de table |
| Height of centres | n. 33 7/8 x 5 1/4 | mm. 815 x 124 | Hauteur de centres |
| Max. distance between centres table | in. 4 7/8 | mm. 125 | Distance max. entre centres |
| Longitudinal table travel | in. 27 | mm. 640 | Coureur longitudinal de la table |
| Vertical spindle travel | in. 16 1/8 | mm. 410 | Coureur vertical de la broche |
| Grinding wheel (dia. and width) | in. 7 1/2 | mm. 190 | Mesure (dia. et largeur) |
| Grinding wheel spindle speeds | in. 5 7/8 x 1/2 | mm. 150 x 12 | Vitesse de la broche porte-mante |
| Power required | r.p.m. 3850-5780 c/m. | | Puissance nécessaire |
| Approx. net weight | H.P. 0.68 | kW. 0.5 | Poids net approx. |
| Approx. gross weight | lb. 340 | kg. 150 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 1.94 | m³ 5.8 | Vol. approx. d'expédition |

87



**CARBIDE
TIPPED TOOL
GRINDING
MACHINE**

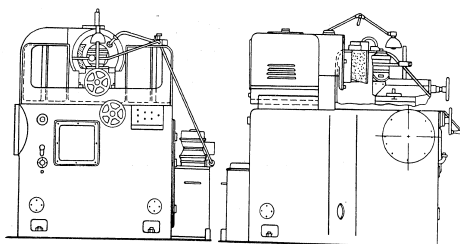
TYPE SAR

**MACHINE
A AFFUTER
LES OUTILS
A POINTE
EN CARBURE**

| | British | Metric | |
|---|--------------------|---------------|--|
| 2 grinding wheels (dia. and width) | in. 13 3/4 x 2 1/2 | mm. 350 x 65 | 2 meules (dia. et largeur) |
| Grinding wheel speed | r.p.m. 1500 1/min. | mm. 175 x 60 | Vitesse de meule |
| 1 polishing wheel (dia. and width) | in. 6 7/8 x 3 3/8 | mm. 175 x 80 | 1 meule de polissage (dia. et largeur) |
| Polishing wheel speeds | r.p.m. 3000 1/min. | mm. 190 x 125 | Vitesse de la meule de polissage |
| 4 casting tables for grinding operation (length x width) | in. 7 1/2 x 4 7/8 | mm. 370 x 175 | 4 tables inclinables pour le ponçage (longueur x largeur) |
| 1 casting table for polishing operation (length x width) | in. 10 5/8 x 7 7/8 | mm. 270 x 175 | 1 table inclinable pour le polissage (longueur x largeur) |
| Power required | H.P. 3.8 | kW. 2.8 | Puissance nécessaire |
| Approx. net weight | lb. 1200 | kg. 600 | Poids net approx. |
| Approx. gross weight | lb. 1870 | kg. 850 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 61 | m³ 2.3 | Vol. approx. d'expédition |

88

METALINDUSTRIAL
ADDRESS : WARSZAWA, P. O. BOX 441
CABLES : METALEX - WARSZAWA



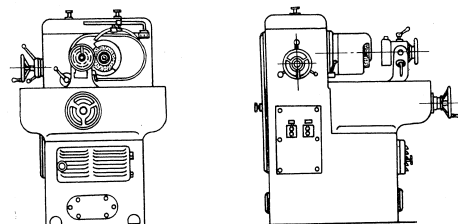
TOOL AND
CUTTER
GRINDER WITH
FLEXIBLE
CLAMPING

TYPE NKB

MACHINE
A AFFUTER
LES OUTILS
ET FRAISES
A SERRAGE
ELASTIQUE

| | British | Metric | |
|-----------------------------------|-------------------|-------------|-----------------------------------|
| Max. section of tool to be ground | in. 1 1/4 x 2 3/8 | mm. 32 x 60 | Section max. de l'outil à affûter |
| Power required | H.P. 3.5 | kW. 2.6 | Puissance nécessaire |
| Approx. net weight | lb. 1760 | kg. 800 | Poids net approx. |
| Approx. gross weight | lb. 2420 | kg. 1100 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 113 | m³ 3.2 | Vol. approx. d'expédition |
| Registered Polish Patent | N° 25510 | | Marque polonaise enregistrée |

89



TOOL GRINDER

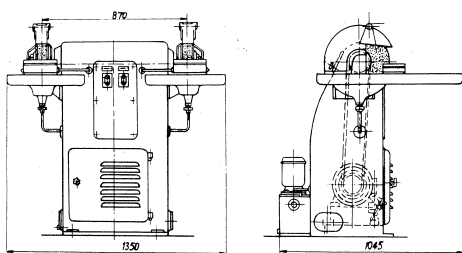
TYPE ONM

AFFUTEUSE
D'OUTILS

| | British | Metric | |
|-----------------------------------|-----------|-------------|-----------------------------------|
| Max. section of tool to be ground | in. 1 x 1 | mm. 25 x 25 | Section max. de l'outil à affûter |
| Power required | H.P. 3.5 | kW. 2.6 | Puissance nécessaire |
| Approx. net weight | lb. 1760 | kg. 800 | Poids net approx. |
| Approx. gross weight | lb. 2420 | kg. 1100 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 71 | m³ 2 | Vol. approx. d'expédition |

90

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



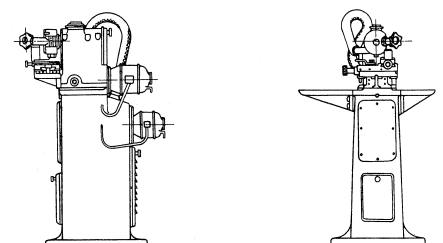
DOUBLE WHEEL GRINDER

TYPE OND

AFFUTEUSE A DEUX MEULES

| | British | Metric | |
|----------------------------------|------------------------------|--------------|--------------------------|
| Grinding wheel (dia. x width) | in. 13 3/4 x 1 5/8 | mm. 350 x 40 | Meules (dia. x largeur) |
| Grinding wheel speeds | r.p.m. 1280 and 1280 (1/min. | | Vitesse de meules |
| Distance between grinding wheels | in. 34 1/4 | mm. 870 | Distance entre meules |
| Power required | H.P. 3 | kW. 2.2 | Puissance nécessaire |
| Approx. net weight | lb. 1100 | kg. 500 | Poids net approx. |
| Approx. gross weight | lb. 1240 | kg. 700 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 71 | m³ 2 | Vol. approx. d'emballage |

91



DRILL GRINDER

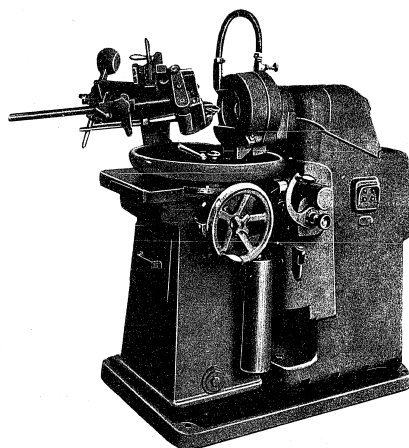
TYPE OW-10

AFFUTEUSE DE FORETS

| | British | Metric | |
|-------------------------------|---------------------|--------------|------------------------------|
| Drill dia. | in. 1/32-3/8 | mm. 0.5-10 | Dia. de foret |
| Angle of inclination of drill | 90°-140° | | Angle d'inclinaison du foret |
| Grinding wheel (dia. x width) | in. 4 7/8 x 1 | mm. 125 x 25 | Meule (dia. x largeur) |
| Grinding wheel speed | r.p.m. 2800 (1/min. | | Vitesse de meule |
| Power required | H.P. 1.25 | kW. 1.3 | Puissance nécessaire |
| Approx. net weight | lb. 1220 | kg. 600 | Poids net approx. |
| Approx. gross weight | lb. 1690 | kg. 720 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 53 | m³ 1.5 | Vol. approx. d'emballage |

92

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



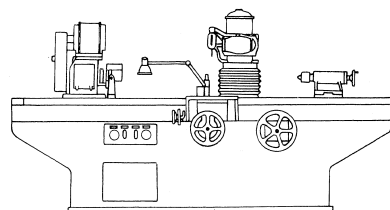
DRILL GRINDER

TYPE OW - 50

AFFUTEUSE
DE FORETS

| | British | Metric | |
|-------------------------------|-------------------|--------------|------------------------------|
| Drill dia. | in. 3/8-2 3/8 | mm. 10-60 | Dia. de foret |
| Angle of inclination of drill | 90°-160° | | Angle d'inclinaison du foret |
| Grinding wheel (dia. x width) | in. 7 7/8 x 2 3/4 | mm. 200 x 70 | Meule (dia. x largeur) |
| Grinding wheel speed | r.p.m. 2800 | | Vitesse de meule |
| Power required | H.P. 2.2 | kW. 2.3 | Puissance nécessaire |
| Approx. net weight | lb. 1800 | kg. 800 | Poids net approx. |
| Approx. gross weight | lb. 2840 | kg. 1200 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 7.1 | m³ 2 | Vol. approx. d'expédition |

93

BROACH
SHARPENING
MACHINE

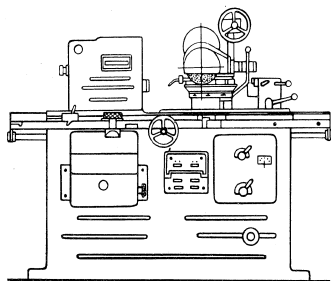
TYPE NCA

MACHINE
A AFFUTER
LES BROCHES

| | British | Metric | |
|-------------------------------|--------------------|-----------------|---|
| Max. dia. of round broach | in. 4 | mm. 100 | Dia. max. de broche ronde |
| Max. width of flat broach | in. 7 7/8 | mm. 200 | Largeur max. de broche plate |
| Max. length of broach | in. 59 1/8 | mm. 500 | Longueur max. de broche |
| Grinding wheel speed | r.p.m. 2840 | | Vitesse de meule |
| 2 working speeds | r.p.m. 200 and 300 | mm. 200 and 300 | 2 vitesses de pièce |
| Table working surface | in. 7 7/8 x 59 3/4 | mm. 200 x 1500 | Surface utile de la table |
| Longitudinal table travel | in. 59 1/8 | mm. 1500 | Course longitudinale de la table |
| Vertical travel of wheel-head | in. 12 5/8 | mm. 320 | Course verticale de la tête porte-meule |
| Power required | H.P. 2.7 | kW. 2 | Puissance nécessaire |
| Approx. net weight | lb. 4180 | kg. 1800 | Poids net approx. |
| Approx. gross weight | lb. 5300 | kg. 2400 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 247 | m³ 7 | Vol. approx. d'expédition |

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METALEX S.A. - WARSZAWA
ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



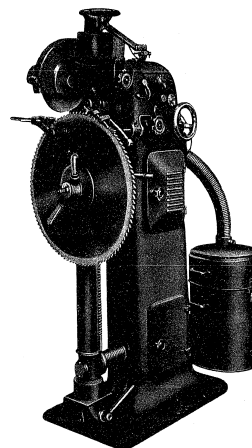
**HOBGING
CUTTER
SHARPENING
MACHINE**

TYPE NFA

**MACHINE
A AFFUTER
LES FRAISES
DE TAILLAGE**

| | British | Metric | |
|-----------------------------|------------------|------------------|------------------------------------|
| Height of centres | in. 5 3/8 | mm. 135 | Hauteur de centres |
| Distance between centres | in. 19 3/4 | mm. 500 | Entre centres |
| Max. cutter grinding dia. | in. 7 7/8 | mm. 200 | Dia. max. d'affûtage de fraise |
| Max. cutter grinding length | in. 7 7/8 | mm. 200 | Longueur max. d'affûtage de fraise |
| Max. table travel | in. 13 3/4 | mm. 400 | Coursee max. de la table |
| Max. table speed | ft./min. 350 5/8 | m/min. 10 | Vitesse max. de la table |
| Power required | H.P. 5.5 | kW. 4 | Puissance nécessaire |
| Approx. net weight | lb. 3750 | kg. 1700 | Poids net approx. |
| Approx. gross weight | lb. 5180 | kg. 2300 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 141 | m ³ 4 | Vol. approx. d'expédition |

95



**CIRCULAR SAW
SHARPENING
MACHINE**

TYPE OCR - 140

**MACHINE A
AFFUTER LES
LAMES DE SCIES
CIRCULAIRES**

| | British | Metric | |
|-------------------------|-------------------|--------------------|-------------------------------|
| Saw blade dia. | in. 13 3/4-25 1/8 | mm. 350-1400 | Dia. de la lame de scie |
| Tooth pitch | in. 1/4-2 3/4 | mm. 6-48 | Pas de la denture |
| Grinding wheel dia. | in. 11 7/8 | mm. 300 | Dia. de meule |
| Grinding head speeds: | | | Vitesse de la tête d'affûtage |
| standard | strokes/min. 30 | coups/min. 30 | standard |
| high speed | strokes/min. 60 | coups/min. 60 | grande vitesse |
| Power required | H.P. 1.1 | kW. 0.8 | Puissance nécessaire |
| Approx. net weight | lb. 1210 | kg. 550 | Poids net approx. |
| Approx. gross weight | lb. 1650 | kg. 750 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 95 | m ³ 2.7 | Vol. approx. d'expédition |

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METALEX S.A. WARSZAWA

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX WARSZAWA



**BELT GRINDING
MACHINE**

TYPE ST - 1

**RECTIFIEUSE
A COURROIE**

| | British | Metric | |
|-------------------------|-------------------|------------------|---------------------------|
| Endless belt: | | | Courroie sans fin: |
| length | in. 62 5/8-57 3/8 | mm. 1580-1460 | longueur |
| width | in. 1 1/8 | mm. 30 | largeur |
| Spindle speeds | r.p.m. 1400-2800 | r.p.m. 1400-2800 | Vitesse de broche |
| Power required | H.P. 0.7 | kW. 0.5 | Puissance nécessaire |
| Approx. net weight | lb. 424 | kg. 200 | Poids net approx. |
| Approx. gross weight | lb. 590 | kg. 265 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 33.2 | m ³ 1 | Vol. approx. d'expédition |

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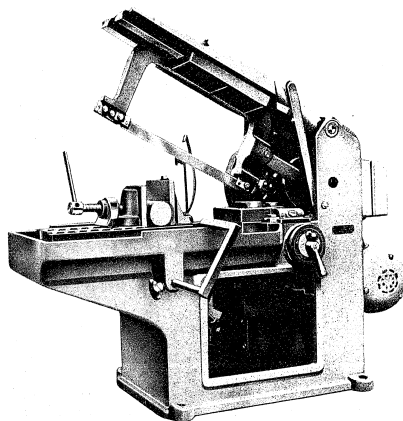
**COLD METAL
SAWING MACHINES**

**SCIES A FROID
POUR MÉTAUX**

10
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98

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX WARSZAWA



HYDRAULIC HACKSAW

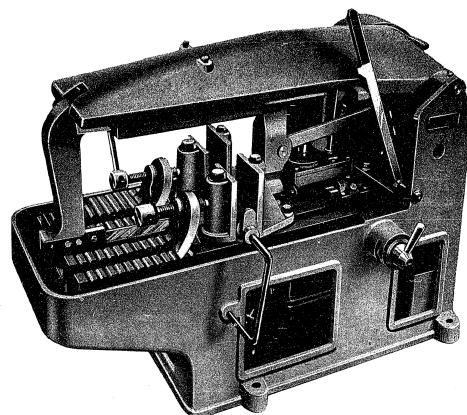
TYPE PM - 120

SCIE HYDRAULIQUE A METAUX

| | British | | Metric | |
|-------------------------------------|------------|--|---------|--|
| Max. workpiece dia. | in. 4 3/4 | | mm. 120 | |
| Number of double strokes per minute | 80 and 105 | | | |
| Frame stroke | in. 5 1/8 | | mm. 140 | |
| Power required | H.P. 1.35 | | kW. 1 | |
| Approx. net weight | lb. 890 | | kg. 420 | |
| Approx. gross weight | lb. 1280 | | kg. 600 | |
| Approx. shipping volume | cu.ft. 71 | | m³ 2 | |

Dia. max. de la pièce
Nombre de doubles courses
par minute
Course de châssis
Puissance nécessaire
Poids net approx.
Poids brut approx.
Vol. approx. d'expédition

99



HYDRAULIC HACKSAW

TYPE PR - 300

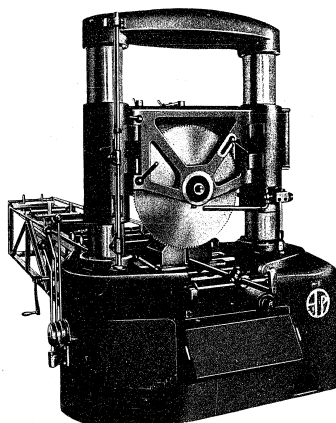
SCIE HYDRAULIQUE A METAUX

| | British | | Metric | |
|-------------------------------------|------------|--|----------|--|
| Max. workpiece dia. | in. 11 7/8 | | mm. 300 | |
| Number of double strokes per minute | 60 and 80 | | | |
| Power required | H.P. 1.5 | | kW. 1.1 | |
| Approx. net weight | lb. 1650 | | kg. 750 | |
| Approx. gross weight | lb. 2200 | | kg. 1000 | |
| Approx. shipping volume | cu.ft. 88 | | m³ 2.5 | |

Dia. max. de la pièce
Nombre de doubles courses
par minute
Puissance nécessaire
Poids net approx.
Poids brut approx.
Vol. approx. d'expédition

100

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



**HYDRAULIC
CIRCULAR SAW**

TYPE CR - 71

**SCIE
CIRCULAIRE
HYDRAULIQUE**

Saw blade dia.
Cutting capacity :
round workpiece
square workpiece
double T workpiece No
6 cutting speeds
Feeds, stepless adjustment
Rapid return feed
Power required
Approx. net weight
Approx. gross weight
Approx. shipping volume

British
in. 24 - 26 - 28
in. 7 7/8 - 9 7/8 - 9 7/8
in. 7 5/8 - 8 5/8 - 9 1/2
in./min. 590-1377
630-1497 689-1576
in./min. 0-19 3/4
in./min. 98 3/8
H.P. 12.3
lb. 7100
lb. 8320
lb. 145

Metric
mm. 610-680-710
mm. 200-225-250
mm. 195-220-240
mm/min. 15-35 16-38
17-40
mm/min. 0-500
mm/min. 2500
kW. 9
kg. 3200
kg. 4000
m³ 4.1

Dia. de la lame de scie
Capacité de coupe :
pièce ronde
pièce carrée
pièce en double T N°
6 vitesses de coupe
Avances, variations con-
tinues
Avance pour retour rapide
Puissance nécessaire
Poids net approx.
Poids brut approx.
Vol. approx. d'emballage

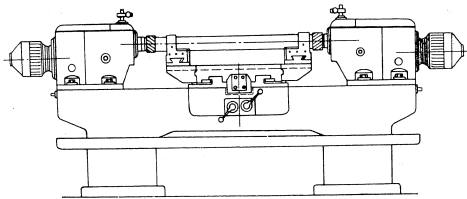
10
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CENTERING MACHINES
MACHINES DE CENTRAGE

11
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102

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



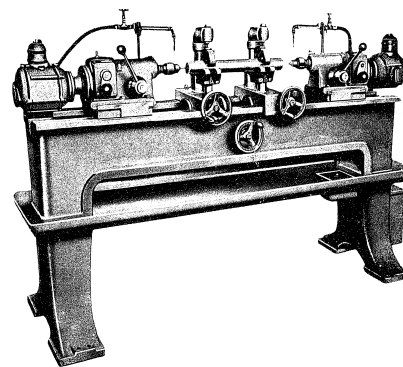
CENTRE MILLING MACHINE

TYPE WCA-80

FRAISEUSE A CENTRE

| | British | Metric | |
|-------------------------|----------------------------|---------------|-----------------------------------|
| Bar dia: | | | Bar dia: |
| min. | in. 3/8 | mm. 10 | min. |
| max. | in. 3 1/8 | mm. 80 | max. |
| Bar length: | | | Longueur de barre: |
| min. | in. 4 | mm. 100 | min. |
| max. | in. 39 1/2 | mm. 750 | max. |
| Milling spindle speed | r.p.m. 110 (min.) | | Vitesse de la broche de fraiseage |
| Centering spindle speed | r.p.m. 960 and 1820 (min.) | | Vitesse de la broche de centrage |
| 4 milling feeds | in./r. 0.0039-0.0075 | mm/r. 0.1-0.2 | 4 avances de fraiseage |
| Power required | H.P. 4.1 | kW. 3 | Puissance nécessaire |
| Approx. net weight | lb. 2200 | kg. 1000 | Poids net approx. |
| Approx. gross weight | lb. 3080 | kg. 1400 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 124 | m³ 3.5 | Vol. approx. d'expédition |

103



HORIZONTAL CENTERING AND SPOT DRILLING MACHINE

TYPE WC-1

MACHINE HORIZONTALE A CENTRE ET PERCER

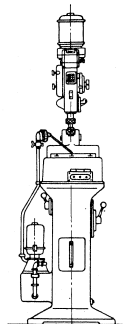
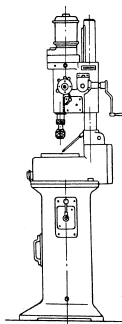
| | British | Metric | |
|--------------------------------|-----------------------------|----------|---|
| Max. bar dia. when machined: | | | Dia. max. de barre une fois usinée: |
| with one tool holder | in. 4 | mm. 100 | avec un porte-outil |
| with two tool holders | in. 3 9/16 | mm. 90 | avec 2 porte-outils |
| Max. bar length when machined: | | | Longueur max. de barre une fois usinée: |
| with one tool holder | in. 7 7/8 | mm. 200 | avec un porte-outil |
| with two tool holders | in. 39 3/8 | mm. 1000 | avec 2 porte-outils |
| Max. spindle travel | in. 1 5/8 | mm. 40 | Course max. de broche |
| Number of spindles | 2 | | Nombre de broches |
| 2 spindle speeds | r.p.m. 1154 and 1410 (min.) | | 2 vitesses de broche |
| Power required - 2 motors | H.P. 1 | kW. 0.74 | Puissance nécessaire - 2 moteurs |
| Approx. net weight | lb. 1980 | kg. 900 | Poids net approx. |
| Approx. gross weight | lb. 2880 | kg. 1300 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 105 | m³ 3 | Vol. approx. d'expédition |

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THREAD CUTTING MACHINES
MACHINES A FILETER

12
3
4
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106

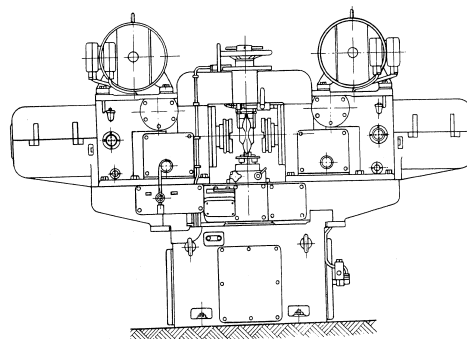
ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA**INTERNAL
THREAD CUTTING
MACHINE**

TYPE CWA - 16

TARAUSEUSE

| | British | Metric | |
|-------------------------|-----------|-----------------|---------------------------|
| Thread dia. - steel | in. 3/8 | mm. 16 | Dia. de filetage - acier |
| Max. spindle travel | in. 2 | mm. 50 | Course max. de la broche |
| 6 spindle speeds | | r.p.m. 500-3800 | 6 vitesses de broche |
| Power required | H.P. 1.4 | kW. 1 | Puissance nécessaire |
| Approx. net weight | lb. 995 | kg. 315 | Poids net approx. |
| Approx. gross weight | lb. 1100 | kg. 500 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 28 | m³ 0.8 | Vol. approx. d'expédition |

107

**FOUR-SPINDLE
SEMI-AUTOMATIC
MACHINE FOR
CENTRAL
HEATING
RADIATORS**

TYPE LB

**MACHINE SEMI-
AUTOMATIQUE
A QUATRE
BROCHES POUR
RADIATEURS
DE CHAUFFAGE
CENTRAL**

| | British | Metric | |
|------------------------------|------------------|----------|--|
| Size of radiators | N° 1, 3 and 4 | mm. 30 | Dimensions des radiateurs |
| Milling and threading depth | in. 1 3/16 | mm. 10 | Profondeurs de filetage et de filetage |
| Planing head movement | in. 3 3/8 | mm. 10 | Déplacement de la tête radieuse |
| Spindle speed | r.p.m. 54 1/min. | sec. 45 | Vitesse de broche |
| Machining time for one piece | | | Temps d'usinage par pièce |
| Power required | H.P. 23.2 | kW. 18.8 | Puissance nécessaire |
| Approx. net weight | lb. 1200 | kg. 500 | Poids net approx. |
| Approx. gross weight | lb. 1260 | kg. 620 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 233 | m³ 8 | Vol. approx. d'expédition |

12

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12

3

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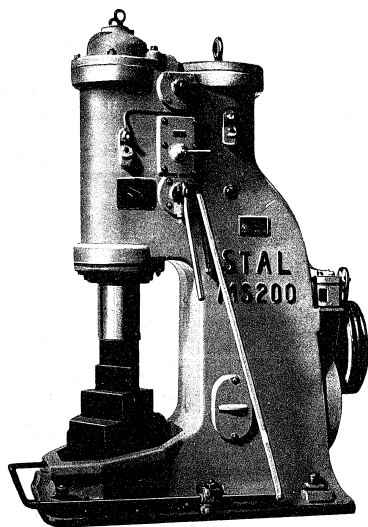
HAMMERS

MARTEAUX

3

4

5



PNEUMATIC POWER HAMMER

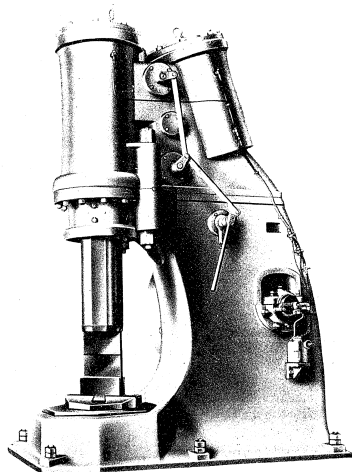
TYPE MS - 100

MARTEAU-PILON PNEUMATIQUE

| | British | Metric | |
|--|-------------|----------|---|
| Ram weight | lb. 220 | kg. 100 | Poids du marteau |
| Energy of full blow | R.Lb. 1160 | kgm. 160 | Energie max. à l'impact |
| Number of blows per minute | | 190 | Nombre de coups à la minute |
| Distance between ram centre line and frame | in. 14 3/4 | mm. 375 | Distance entre axe du marteau et bâti |
| Max. size of workpiece (square section) | in. 3 3/4 | mm. 85 | Dimension max. de la pièce (section carrée) |
| Max. dia. of round workpiece | in. 4 3/8 | mm. 110 | Dia. max. de pièce ronde |
| M.P. 15 | | kW. 11 | Puissance du moteur |
| Motor power | lb. 4530 | kg. 2100 | Poids de la chabotte |
| Anvil block weight | lb. 8500 | kg. 4300 | Poids approx. du marteau |
| Approx. weight of the hammer | | m³ 9.5 | Vol. approx. d'expédition |
| Approx. shipping volume | cu. ft. 334 | | |

TYPE [MS - 200

| | British | Metric | |
|--|-------------|----------|---|
| Ram weight | lb. 440 | kg. 200 | Poids du marteau |
| Energy of full blow | R.Lb. 3035 | kgm. 420 | Energie max. à l'impact |
| Number of blows per minute | | 190 | Nombre de coups à la minute |
| Distance between ram centre line and frame | in. 16 1/8 | mm. 400 | Distance entre axe du marteau et bâti |
| Max. size of workpiece (square section) | in. 5 7/8 | mm. 150 | Dimension max. de la pièce (section carrée) |
| Max. dia. of round workpiece | in. 6 3/4 | mm. 170 | Dia. max. de pièce ronde |
| M.P. 24.4 | | kW. 18 | Puissance du moteur |
| Motor power | lb. 3500 | kg. 1700 | Poids de la chabotte |
| Anvil block weight | lb. 17400 | kg. 7900 | Poids approx. du marteau |
| Approx. weight of the hammer | | m³ 10.5 | Vol. approx. d'expédition |
| Approx. shipping volume | cu. ft. 370 | | |



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PNEUMATIC POWER HAMMER

TYPE MS - 500

MARTEAU-PILON PNEUMATIQUE

| | British | | Metric | |
|--|--------------|-----|-----------|---|
| Ram weight | lb. 1100 | | kg. 500 | Poids du mouton |
| Energy of full blow | lb.-ft. 8900 | 105 | kgm. 1280 | Energie max. à l'impact |
| Number of blows per minute | | | | Nombre de coups à la minute |
| Distance between ram centre line and frame | in. 24 | | mm. 610 | Distance entre axe du mouton et bâti |
| Max. size of workpiece (square section) | in. 11 7/8 | | mm. 300 | Dimension max. de la pièce (section carrée) |
| Max. dia. of round workpiece | in. 13 5/8 | | mm. 345 | Dia. max. de pièce ronde |
| Motor power | H.P. 54.3 | | kW. 40 | Puissance du moteur |
| Anvil block weight | lb. 19000 | | kg. 9000 | Poids de la chabotte |
| Approx. weight of the hammer | lb. 37400 | | kg. 17000 | Poids approx. du marteau |
| Approx. shipping volume | cu.ft. 705 | | m³ 20 | Vol. approx. d'expédition |

TYPE MS - 1000

| | British | | Metric | |
|--|---------------|----|-----------|---|
| Ram weight | lb. 2200 | | kg. 1000 | Poids du mouton |
| Energy of full blow | lb.-ft. 24600 | 90 | kgm. 3400 | Energie max. à l'impact |
| Number of blows per minute | | | | Nombre de coups à la minute |
| Distance between ram centre line and frame | in. 27 5/8 | | mm. 700 | Distance entre axe du mouton et bâti |
| Max. size of workpiece (square section) | in. 17 | | mm. 430 | Dimension max. de la pièce (section carrée) |
| Max. dia. of round workpiece | in. 19 1/4 | | mm. 490 | Dia. max. de pièce ronde |
| Motor power | H.P. 89.3 | | kW. 65 | Puissance du moteur |
| Anvil block weight | lb. 25000 | | kg. 11400 | Poids de la chabotte |
| Approx. weight of the hammer | lb. 42000 | | kg. 25000 | Poids approx. du marteau |
| Approx. shipping volume | cu.ft. 635 | | m³ 16 | Vol. approx. d'expédition |

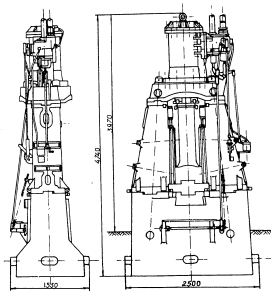
3

4

5

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



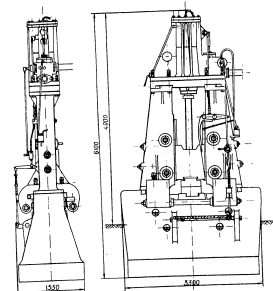
DIE FORGING STEAM AND AIR HAMMER

TYPE MPM - 1000

MARTEAU D'ÉTAMPAGE A VAPEUR ET A AIR

| | British | Metric | |
|---|----------------------|--------------------------|---|
| Ram weight (without die) | lb. 2880 | kg. 1300 | Poids du marteau (sans matrice) |
| Max. stroke of ram | in. 38 | mm. 915 | Course max. du marteau |
| Energy of full blow | lb.-ft. 18300 | kgm. 2350 | Energie max. à l'impact |
| Number of blows per minute | | 70-100 | Nombre de coups à la minute |
| Steam or air pressure | lb./sq. in. 71.5-114 | atm. 6-8 | Pression de vapeur ou d'air |
| Air consumption | cu.ft./min. 308 | m ³ /min. 8.7 | Consommation d'air |
| Steam consumption | lb./hour 940 | kg./heure 380 | Consommation de vapeur |
| Anvil block weight | lb. 4800 | kg. 2200 | Poids de la chabotte |
| Approx. weight of hammer (anvil block included) | lb. 6880 | kg. 3100 | Poids approx. de marteau avec la chabotte |

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DIE FORGING STEAM AND AIR HAMMER

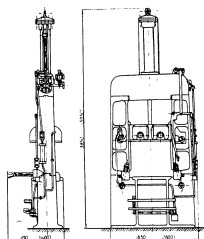
TYPE MPM - 2000

MARTEAU D'ÉTAMPAGE A VAPEUR ET A AIR

| | British | Metric | |
|---|----------------------|---------------------------|---|
| Ram weight (without die) | lb. 5280 | kg. 2400 | Poids du marteau (sans matrice) |
| Max. stroke of ram | in. 37 3/4 | mm. 960 | Course max. du marteau |
| Energy of full blow | lb.-ft. 33000 | kgm. 4800 | Energie max. à l'impact |
| Number of blows per minute | | 80 | Nombre de coups à la minute |
| Steam or air pressure | lb./sq. in. 71.5-114 | atm. 6-8 | Pression de vapeur ou d'air |
| Air consumption | cu.ft./min. 475 | m ³ /min. 13.5 | Consommation d'air |
| Steam consumption | lb./hour 1280 | kg./heure 600 | Consommation de vapeur |
| Anvil block weight | lb. 11000 | kg. 5000 | Poids de la chabotte |
| Approx. weight of hammer (anvil block included) | lb. 15000 | kg. 7000 | Poids approx. de marteau avec la chabotte |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



**PNEUMATIC
METAL SHEET
PUNCHING
HAMMER**

TYPE MPB - 2

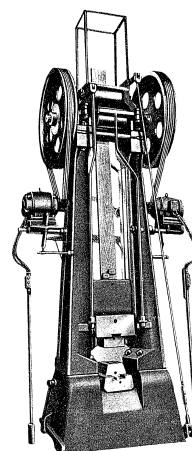
**MARTEAU
PNEUMATIQUE
A POINÇONNER
LES TOLES**

| | British | Metric | |
|------------------------------|---------------------|--------------------------|-----------------------------|
| Ram weight | lb. 1880 | kg. 400 | Poids du mouton |
| Energy of full blow | lb.-ft. 8650 | kgm. 1300 | Energie max. à l'impact |
| Number of blows per minute | 80 | | Nombre de coups à la minute |
| Stroke of ram | in. 35 7/8 | mm. 910 | Course du mouton |
| Air pressure | lb./sq.in. 71.5-114 | atm. 6-8 | Pression d'air |
| Air consumption | cu.ft./min. 88 | m ³ /min. 2.5 | Consommation d'air |
| Weight of anvil block | lb. 10200 | kg. 4700 | Poids de la chabotte |
| Approx. weight of the hammer | lb. 16000 | kg. 7400 | Poids approx. du marteau |

TYPE MPB - 3

| | British | Metric | |
|------------------------------|---------------------|------------------------|-----------------------------|
| Ram weight | lb. 3880 | kg. 1300 | Poids du mouton |
| Energy of full blow | lb.-ft. 23000 | kgm. 3500 | Energie max. à l'impact |
| Number of blows per minute | 80 | | Nombre de coups à la minute |
| Stroke of ram | in. 43 1/4 | mm. 1100 | Course du mouton |
| Air pressure | lb./sq.in. 71.5-114 | atm. 6-8 | Pression d'air |
| Air consumption | cu.ft./min. 176 | m ³ /min. 5 | Consommation d'air |
| Weight of anvil block | lb. 30000 | kg. 14000 | Poids de la chabotte |
| Approx. weight of the hammer | lb. 42700 | kg. 38000 | Poids approx. du marteau |

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**POWER DROP
HAMMER**

TYPE MSD - 750

**MARTEAU
PILOIN**

| | British | Metric | |
|---|--------------|-----------|---|
| Weight of ram (without die) | lb. 1650 | kg. 750 | Poids du mouton (sans matrice) |
| Energy of full blow | lb.-ft. 8650 | kgm. 1300 | Energie max. à l'impact |
| Max. stroke of ram | in. 47 | mm. 1700 | Course max. du mouton |
| Number of blows per minute at full stroke | 60 | | Nombre de coups à la minute à pleine course |
| Motor power | H.P. 20.4 | kW. 15 | Puissance du moteur |
| Weight of anvil block | lb. 38000 | kg. 17500 | Poids de la chabotte |
| Approx. weight of the hammer | lb. 60000 | kg. 27300 | Poids approx. du marteau |

13
4
15

PRESSES

PRESSES

120

ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA**POWER
ECCENTRIC
PRESS****TYPE PMS - 6.3**

| | British | Metric |
|---|--------------------|---------------------|
| Max. pressure | lb. 13850 | kg. 6300 |
| Max. surface of cut at tensile strength 40 kg/mm ² | sq.in. 0.245 | mm ² 158 |
| Throat at table level | in. 4 7/8 | mm. 125 |
| Table dimensions | in. 19 3/4 x 9 5/8 | mm. 400 x 245 |
| Strokes of ram | in. 3/8 x 3/8 | mm. 8.60 |
| Number of strokes per minute | | 150 |
| Max. distance between table plate and ram | in. 7 1/2 | mm. 190 |
| Table hole | in. 6 1/4 x 5 1/2 | mm. 160 x 140 |
| Motor power | H.P. 0.85 | kW. 0.7 |
| Weight of press (without motor) | lb. 1840 | kg. 700 |
| Approx. shipping volume | cu.ft. 53 | m ³ 1 |

TYPE PMS - 10

| | British | Metric |
|---|---------------------|---------------------|
| Max. pressure | lb. 22000 | kg. 10000 |
| Max. surface of cut at tensile strength 40 kg/mm ² | sq.in. 0.389 | mm ² 250 |
| Throat at table level | in. 6 1/4 | mm. 160 |
| Table dimensions | in. 19 3/4 x 13 3/4 | mm. 400 x 330 |
| Strokes of ram | in. 3/8 x 3/8 | mm. 8.60 |
| Number of strokes per minute | | 20 |
| Max. distance between table plate and ram | in. 7 7/8 | mm. 200 |
| Table hole | in. 5 1/2 x 4 7/8 | mm. 140 x 125 |
| Motor power | H.P. 2 | kW. 1.5 |
| Weight of press (without motor) | lb. 1980 | kg. 900 |
| Approx. shipping volume | cu.ft. 50 | m ³ 1.4 |

TYPE PMS - 16

| | British | Metric |
|---|---------------------|---------------------|
| Max. pressure | lb. 35800 | kg. 16000 |
| Max. surface of cut at tensile strength 40 kg/mm ² | sq.in. 0.62 | mm ² 401 |
| Throat at table level | in. 7 7/8 | mm. 200 |
| Table dimensions | in. 17 3/4 x 15 5/8 | mm. 400 x 385 |
| Strokes of ram | in. 3/8 x 3/8 | mm. 8.60 |
| Number of strokes per minute | | 140 |
| Max. distance between table plate and ram | in. 9 1/4 | mm. 235 |
| Table hole | in. 7 7/8 x 7 1/8 | mm. 200 x 180 |
| Motor power | H.P. 2 | kW. 1.5 |
| Weight of press (without motor) | lb. 1980 | kg. 900 |
| Approx. shipping volume | cu.ft. 50 | m ³ 1.4 |

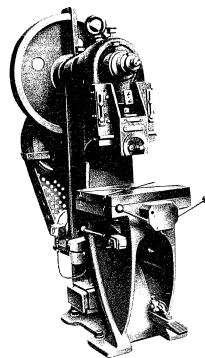
**PRESSE
MÉCANIQUE
À EXCENTRIQUE**

Pression max.
Surface max. de coupe pour une résistance en traction de 40 kg/mm²
Profondeur du col de cygne au niveau de la table
Dimensions de la table
Courses du coulissons
Nombre de coups à la minute
Distance max. entre plateau de table et coulisson
Ouverture de la table
Puissance du moteur
Poids de la presse (sans moteur)
Vol. approx. d'expédition

Pression max.
Surface max. de coupe pour une résistance en traction de 40 kg/mm²
Profondeur du col de cygne au niveau de la table
Dimensions de la table
Courses du coulissons
Nombre de coups à la minute
Distance max. entre plateau de table et coulisson
Ouverture de la table
Puissance du moteur
Poids de la presse (sans moteur)
Vol. approx. d'expédition

Pression max.
Surface max. de coupe pour une résistance en traction de 40 kg/mm²
Profondeur du col de cygne au niveau de la table
Dimensions de la table
Courses du coulissons
Nombre de coups à la minute
Distance max. entre plateau de table et coulisson
Ouverture de la table
Puissance du moteur
Poids de la presse (sans moteur)
Vol. approx. d'expédition

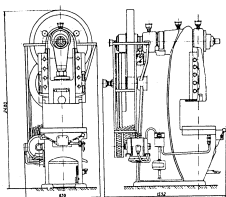
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**POWER
ECCENTRIC
PRESS****TYPE PMS - 25**

| | British | Metric |
|---|---------------------|---------------------|
| Max. pressure | lb. 53000 | kg. 25000 |
| Max. surface of cut at tensile strength 40 kg/mm ² | sq.in. 0.87 | mm ² 625 |
| Throat at table level | in. 6 1/4 | mm. 160 |
| Table dimensions | in. 19 3/4 x 12 5/8 | mm. 200 x 320 |
| Strokes of ram | in. 1/2 x 1/2 | mm. 12.70 |
| Number of strokes per minute | | 40 |
| Max. distance between table plate and ram | in. 11 7/8 | mm. 300 |
| Table hole | in. 7 7/8 x 7 1/8 | mm. 200 x 180 |
| Motor power | H.P. 2.7 | kW. 2 |
| Weight of press (without motor) | lb. 4400 | kg. 2000 |
| Approx. shipping volume | cu.ft. 64 | m ³ 1.8 |

**PRESSE
MÉCANIQUE
À EXCENTRIQUE**

Pression max.
Surface max. de coupe pour une résistance en traction de 40 kg/mm²
Profondeur du col de cygne au niveau de la table
Dimensions de la table
Courses du coulissons
Nombre de coups à la minute
Distance max. entre plateau de table et coulisson
Ouverture de la table
Puissance du moteur
Poids de la presse (sans moteur)
Vol. approx. d'expédition

POWER
ECCENTRIC
PRESS

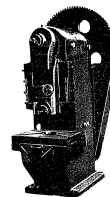
TYPE PMS - 40

PRESSE
MECANIQUE
A EXCENTRIQUE

| | British | Metric | |
|--|---------------------|----------------------|--|
| Max. pressure | lb. 8800 | kg. 4000 | Pression max. |
| Max. surface of cut at ten-
sile strength 40 kg/mm ² | sq. in. 1.52 | mm ² 1000 | Surface max. de coupe
pour une résistance en
traction de 40 kg/mm ² |
| Throat at table level | in. 7 7/8 | mm. 200 | Profondeur du col de cygne
au niveau de la table |
| Table dimensions | in. 24 3/4 x 13 3/4 | mm. 630 x 330 | Dimensions de la table |
| Strokes of ram | in. 30-3 1/2 | mm. 8-90 | Course du coulisseau |
| Number of strokes per
minute | in. 12 1/4 | mm. 310 | Nombre de coups à la mi-
nute |
| Max. distance between
table plate and ram | in. 13 3/8 x 7 7/8 | mm. 315 x 300 | Distance max. entre pla-
teau de table et coulis-
seau |
| Table hole | in. 15 3/4 x 14 | mm. 400 x 355 | Ouverture de la table |
| Motor power | H.P. 4.1 | kW. 3 | Puissance du moteur |
| Weight of press (without
motor) | lb. 4630 | kg. 2100 | Poids de la presse (sans
moteur) |
| Approx. shipping volume | cu. ft. 99 | m ³ 2.8 | Vol. approx. d'expédition |

TYPE PMS - 50

| | British | Metric | |
|--|---------------------|----------------------|--|
| Max. pressure | lb. 11000 | kg. 5000 | Pression max. |
| Max. surface of cut at ten-
sile strength 40 kg/mm ² | sq. in. 1.54 | mm ² 1250 | Surface max. de coupe
pour une résistance en
traction de 40 kg/mm ² |
| Throat at table level | in. 9 7/8 | mm. 250 | Profondeur du col de cygne
au niveau de la table |
| Table dimensions | in. 23 5/8 x 18 7/8 | mm. 600 x 480 | Dimensions de la table |
| Strokes of ram | in. 30-4 | mm. 10-100 | Course du coulisseau |
| Number of strokes per
minute | in. 15 1/8 | mm. 385 | Nombre de coups à la mi-
nute |
| Max. distance between
table plate and ram | in. 15 1/8 | mm. 385 | Distance max. entre pla-
teau de table et coulis-
seau |
| Table hole | in. 17 7/8 x 16 1/8 | mm. 450 x 410 | Ouverture de la table |
| Motor power | H.P. 7.3 | kW. 5.4 | Puissance du moteur |
| Weight of press (without
motor) | lb. 7120 | kg. 3250 | Poids de la presse (sans
moteur) |
| Approx. shipping volume | cu. ft. 127 | m ³ 3.6 | Vol. approx. d'expédition |

POWER
ECCENTRIC
PRESS

TYPE PMS - 100

PRESSE
MECANIQUE
A EXCENTRIQUE

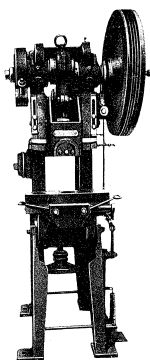
| | British | Metric | |
|--|---------------------|----------------------|--|
| Max. pressure | lb. 23000 | kg. 10000 | Pression max. |
| Max. surface of cut at ten-
sile strength 40 kg/mm ² | sq. in. 3.28 | mm ² 2500 | Surface de coupe max.
pour une résistance en
traction de 40 kg/mm ² |
| Throat at table level | in. 13 3/4 | mm. 350 | Profondeur du col de cygne
au niveau de la table |
| Table dimensions | in. 35 1/2 x 24 3/8 | mm. 900 x 620 | Dimensions de la table |
| Strokes of ram | in. 30 3/8 x 4 3/8 | mm. 10-110 | Course du coulisseau |
| Number of strokes per
minute | in. 12 3/8 | mm. 315 | Nombre de coups à la mi-
nute |
| Max. distance between
table plate and ram | in. 15 3/4 x 14 | mm. 400 x 355 | Distance max. entre pla-
teau de table et coulis-
seau |
| Table hole | H.P. 2.7 | kW. 2.0 | Ouverture de la table |
| Motor power | lb. 18500 | kg. 8400 | Puissance du moteur |
| Weight of press (without
motor) | cu. ft. 116 | m ³ 3.3 | Poids de la presse (sans
moteur) |
| Approx. shipping volume | | | Vol. approx. d'expédition |

TYPE PMS - 160

| | British | Metric | |
|--|---------------------|----------------------|--|
| Max. pressure | lb. 33000 | kg. 15000 | Pression max. |
| Max. surface of cut (tensile
strength 40 kg/mm ²) | sq. in. 6.2 | mm ² 4000 | Surface de coupe max.
pour une résistance en
traction de 40 kg/mm ² |
| Throat at table level | in. 15 3/4 | mm. 400 | Profondeur du col de cygne
au niveau de la table |
| Table dimensions | in. 39 3/8 x 21 1/2 | mm. 1000 x 540 | Dimensions de la table |
| Strokes of ram | in. 34 5/8 x 12 | mm. 30-140 | Course du coulisseau |
| Number of strokes per
minute | in. 12 3/8 | mm. 315 | Nombre de coups à la mi-
nute |
| Max. distance between
table plate and ram | in. 14 5/8 | mm. 355 x 320 | Distance max. entre pla-
teau de table et coulis-
seau |
| Table hole | H.P. 12.5 | kW. 9.2 | Ouverture de la table |
| Motor power | lb. 19000 | kg. 9000 | Puissance du moteur |
| Weight of press (without
motor) | cu. ft. 210 | m ³ 6.0 | Poids de la presse (sans
moteur) |
| Approx. shipping volume | | | Vol. approx. d'expédition |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



TYPE PMP - 8

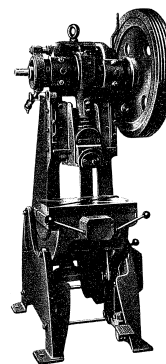
**POWER
INCLINABLE
ECCENTRIC
PRESS**

**PRESSE
MECANIQUE
INCLINABLE
A EXCENTRIQUE**

| | British | | Metric | |
|--|--------------------|-----|---------------------|--|
| Max. pressure | lb. 17600 | | kg. 8000 | |
| Max. surface of cut at ten-
sile strength 40 kg/mm ² | sq.in. 0.31 | | mm ² 200 | |
| Throat at table level | in. 4 7/8 | | mm. 125 | |
| Table dimensions | in. 15 3/4 x 9 7/8 | | mm. 400 x 250 | |
| Max. distance between
table plate and ram | in. 8 1/4 | | mm. 210 | |
| Stroke | in. 3 1/2 x 3/8 | | mm. 80 | |
| Number of strokes per
minute | in. 4 7/8 - 4 3/8 | 120 | mm. 125 - 110 | |
| Table hole | H.P. 1.1 | | kW. 0.8 | |
| Motor power | lb. 1280 | | kg. 580 | |
| Weight of press (without
motor) | | | | |
| Max. angle of inclination | | 30° | | |
| Approx. shipping volume | cu.ft. 49.5 | | m ³ 1.4 | |

Pression max.
Surface de coupe max.
pour une résistance en
traction de 40 kg/mm²
Profondeur du col de cygne
au niveau de la table
Dimensions de la table
Distance max. entre pla-
teau de table et coulis-
seau
Course
Nombre de coups à la mi-
nute
Ouverture de la table
Puissance du moteur
Poids de la presse (sans
moteur)
Angle max. d'inclinaison
Vol. approx. d'expédition

125



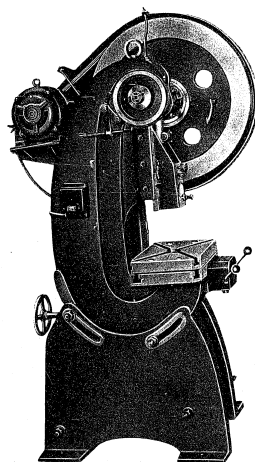
TYPE PMP - 12.5

**POWER
INCLINABLE
ECCENTRIC
PRESS**

**PRESSE
MECANIQUE
INCLINABLE
A EXCENTRIQUE**

| | British | | Metric | |
|--|-------------------|-----|---------------------|--|
| Max. pressure | lb. 27500 | | kg. 12500 | |
| Max. surface of cut at ten-
sile strength 40 kg/mm ² | sq.in. 0.485 | | mm ² 313 | |
| Throat at table level | in. 5 1/2 | | mm. 140 | |
| Table dimensions | in. 9 3/4 x 11 | | mm. 250 x 280 | |
| Max. distance between
table plate and ram | in. 8 5/8 | | mm. 220 | |
| Stroke | in. 3 9/8 x 2/8 | 120 | mm. 80 | |
| Number of strokes per
minute | in. 6 1/4 - 5 1/2 | | mm. 160 - 140 | |
| Table hole | H.P. 1.5 | | kW. 1.1 | |
| Motor power | lb. 2200 | | kg. 1000 | |
| Weight of press (without
motor) | | | | |
| Max. angle of inclination | | 30° | | |
| Approx. shipping volume | cu.ft. 57 | | m ³ 1.6 | |

Pression max.
Surface de coupe max.
pour une résistance en
traction de 40 kg/mm²
Profondeur du col de cygne
au niveau de la table
Dimensions de la table
Distance max. entre pla-
teau de table et coulis-
seau
Course
Nombre de coups à la mi-
nute
Ouverture de la table
Puissance du moteur
Poids de la presse (sans
moteur)
Angle max. d'inclinaison
Vol. approx. d'expédition



**POWER
INCLINABLE
ECCENTRIC
PRESS**

TYPE PMP - 20

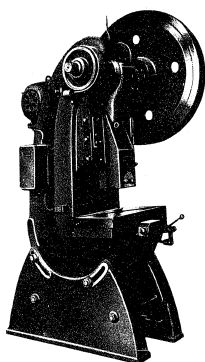
**PRESSE
MECANIQUE
INCLINABLE
A EXCENTRIQUE**

| | British | Metric | |
|--|-------------------|---------------------|--|
| Max. pressure | lb. 44000 | kg. 20000 | Pression max. |
| Max. surface of cut at ten-
sile strength 40 kg/mm ² | sq. in. 0.775 | mm ² 500 | Surface de coupe max.
pour une résistance en
traction de 40 kg/mm ² |
| Throat at table level | in. 5 1/2 | mm. 140 | Profondeur du col de cygne
au niveau de la table |
| Table dimensions | in. 12 3/4 x 11 | mm. 300 x 280 | Dimensions de la table |
| Max. distance between
table plate and ram | in. 9 7/8 | mm. 250 | Distance max. entre pla-
teau de table et coulis-
seau |
| Stroke | in. 3/8-3 1/8 | mm. 8-80 | Course |
| Number of strokes per
minute | | 120 | Nombre de coups à la mi-
nute |
| Table hole | in. 6 1/4 x 5 1/2 | mm. 160 x 140 | Ouverture de la table |
| Motor power | H.P. 2 | kW. 1.5 | Puissance du moteur |
| Weight of press (without
motor) | lb. 2400 | kg. 1100 | Poids de la presse (sans
moteur) |
| Max. angle of inclination | | 30° | Angle max. d'inclinaison |
| Approx. shipping volume | cu. ft. 63.5 | m ³ 1.8 | Vol. approx. d'expédition |

TYPE PMP - 25

| | British | Metric | |
|--|-------------------|---------------------|--|
| Max. pressure | lb. 55000 | kg. 25000 | Pression max. |
| Max. surface of cut at ten-
sile strength 40 kg/mm ² | sq. in. 0.97 | mm ² 625 | Surface de coupe max.
pour une résistance en
traction de 40 kg/mm ² |
| Throat at table level | in. 6 1/4 | mm. 160 | Profondeur du col de cygne
au niveau de la table |
| Table dimensions | in. 22 x 12 3/8 | mm. 560 x 315 | Dimensions de la table |
| Max. distance between
table plate and ram | in. 11 | mm. 280 | Distance max. entre pla-
teau de table et coulis-
seau |
| Stroke | in. 3/8-3 1/8 | mm. 8-80 | Course |
| Number of strokes per
minute | | 110 | Nombre de coups à la mi-
nute |
| Table hole | in. 7 7/8 x 7 1/8 | mm. 200 x 180 | Ouverture de la table |
| Motor power | H.P. 3 | kW. 2.2 | Puissance du moteur |
| Weight of press (without
motor) | lb. 3080 | kg. 1400 | Poids de la presse (sans
moteur) |
| Max. angle of inclination | | 30° | Angle max. d'inclinaison |
| Approx. shipping volume | cu. ft. 86 | m ³ 2.5 | Vol. approx. d'expédition |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA**POWER
INCLINABLE
ECCENTRIC
PRESS**

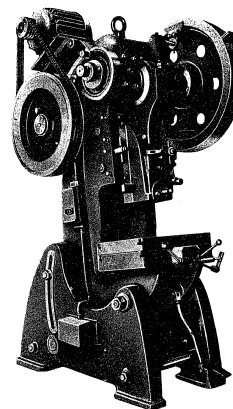
TYPE PMP - 31.5

**PRESSE
MECANIQUE
INCLINABLE
A EXCENTRIQUE**

| | British | Metric |
|--|---------------------|---------------------|
| Max. pressure | lb. 68000 | kg. 31000 |
| Max. surface of cut at ten-
sile strength 40 kg/mm ² | sq.in. 1.22 | mm ² 787 |
| Throat at table level | in. 7 1/8 | mm. 180 |
| Table dimensions | in. 24 7/8 - 13 3/4 | mm. 630 - 335 |
| Max. distance between
table plate and ram | in. 11 7/8 | mm. 300 |
| Strokes | in. 3 3/4 | mm. 8-100 |
| Number of strokes per
minute | | 100 |
| Table hole | in. 8 5/8 - 7 7/8 | mm. 220 - 200 |
| Motor power | H.P. 2.5 | kW. 1.85 |
| Weight of press (without
motor) | lb. 4400 | kg. 2000 |
| Max. angle of inclination | | 30° |
| Approx. shipping volume | cu.ft. 120 | m ³ 3.4 |

Pression max.
Surface de coupe max.
pour une résistance en
traction de 40 kg/mm²
Profondeur du col de cygne
au niveau de la table
Dimensions de la table
Distance max. entre pla-
teau de table et coulis-
seau
Course
Nombre de coups à la mi-
nute
Ouverture de la table
Puissance du moteur
Poids de la presse (sans
moteur)
Angle max. d'inclinaison
Vol. approx. d'expédition

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**POWER
INCLINABLE
ECCENTRIC
PRESS**

TYPE PMP - 40

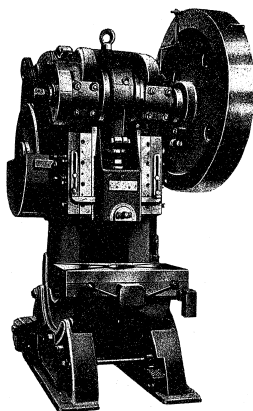
**PRESSE
MECANIQUE
INCLINABLE
A EXCENTRIQUE**

| | British | Metric |
|--|---------------------|----------------------|
| Max. pressure | lb. 88000 | kg. 40000 |
| Max. surface of cut at ten-
sile strength 40 kg/mm ² | sq.in. 1.55 | mm ² 1000 |
| Throat at table level | in. 7 7/8 | mm. 200 |
| Table dimensions | in. 24 7/8 - 13 3/4 | mm. 630 - 450 |
| Max. distance between
table plate and ram | in. 14 | mm. 355 |
| Strokes | in. 1/2 - 4 3/4 | mm. 12-120 |
| Number of strokes per
minute | | 50 |
| Table hole | in. 11 - 9 1/4 | mm. 280 - 239 |
| Motor power | H.P. 5.4 | kW. 4 |
| Weight of press (without
motor) | lb. 6200 | kg. 2800 |
| Max. angle of inclination | | 30° |
| Approx. shipping volume | cu.ft. 126 | m ³ 4.4 |

Pression max.
Surface de coupe max. pour
une résistance en trac-
tion de 40 kg/mm²
Profondeur du col de cygne
au niveau de la table
Dimensions de la table
Distance max. entre pla-
teau de table et coulis-
seau
Course
Nombre de coups à la mi-
nute
Ouverture de la table
Puissance du moteur
Poids de la presse (sans
moteur)
Angle d'inclinaison max.
Vol. approx. d'expédition

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



**POWER
INCLINABLE
ECCENTRIC
PRESS**

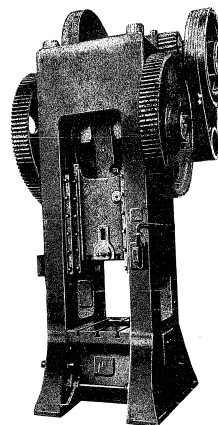
TYPE PMP - 63

| | British | Metric |
|--|---------------------|----------------------|
| Max. pressure | lb. 13000 | kg. 63000 |
| Max. surface of cut at ten-
sile strength 40 kg/mm ² | sq.in. 2.44 | mm ² 1578 |
| Thrust at table level | in. 9 7/8 | mm. 250 |
| Table dimensions | in. 31 1/2 x 19 3/4 | mm. 800 x 500 |
| Max. distance between
table plate and ram | in. 16 3/4 | mm. 425 |
| Strokes | in. 3/4 - 4 3/4 | mm. 20 - 120 |
| Number of strokes per
minute | 80 | |
| Table hole | in. 12 3/8 x 11 | mm. 315 x 280 |
| Motor power | H.P. 6 | kw. 4.4 |
| Weight of press (without
motor) | lb. 6000 | kg. 3000 |
| Max. angle of inclination | 30° | |
| Approx. shipping volume | cu.ft. 219 | m ³ 6.2 |

**PRESSE
MECANIQUE
INCLINABLE
A EXCENTRIQUE**

| | |
|--|--|
| Pression max. | Surface de coupe max. pour
une résistance en trac-
tion de 40 kg/mm ² |
| Profondeur du col de cygne
au niveau de la table | Dimensions de la table |
| Distance max. entre pla-
teau de table et coulis-
seau | Course |
| Nombre de coups à la mi-
nute | Ouverture de la table |
| Puissance du moteur | Poids de la presse (sans
moteur) |
| Angle d'inclinaison max. | Vol. approx. d'expédition |

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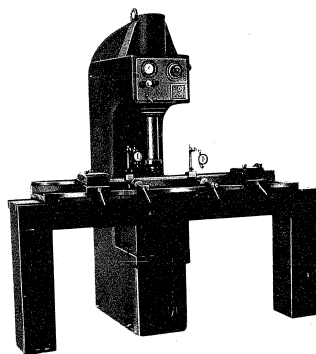
**TRIMMING
PRESS**

TYPE PKrR - 200

| | British | Metric |
|---|---------------------|-------------------|
| Max. pressure | lb. 44000 | kg. 20000 |
| Stroke | in. 4 3/4 | mm. 120 |
| Number of strokes per
minute (at continuous
motion) | 30 | |
| Table dimensions | in. 35 1/2 x 24 7/8 | mm. 800 x 620 |
| Table hole | in. 13 3/8 x 11 7/8 | mm. 340 x 300 |
| Motor power | H.P. 15 | kw. 11 |
| Weight of press | lb. 60000 | kg. 20000 |
| Approx. shipping volume | cu.ft. 423 | m ³ 12 |

**PRESSE
A DEBAVURER**

| | |
|--|---------------------------|
| Pression max. | Course |
| Nombre de coups à la mi-
nute (en mouvement con-
tinu) | Dimensions de la table |
| Ouverture de la table | Puissance du moteur |
| Poids de la presse | Vol. approx. d'expédition |



HYDRAULIC SINGLE COLUMN PRESS

TYPE PHW - 12

PRESSE HYDRAULIQUE A MONTANT UNIQUE

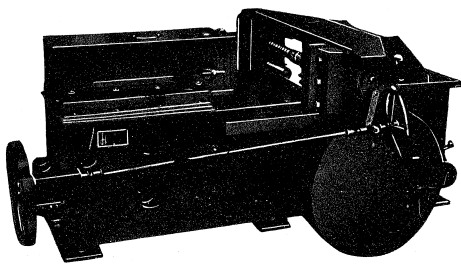
| | British | Metric | |
|-------------------------------------|---------------------|--------------------|--|
| Max. pressure | lb. 25400 | kg. 12000 | Pression max. |
| Max. return pressure | lb. 8800 | kg. 4000 | Pression max. de retour |
| Stroke | in. 0-15 3/4 | mm. 0-400 | Course |
| Throat at table level | in. 7 1/8 | mm. 180 | Profondeur du col de cygne |
| Max. distance between ram and table | in. 22 7/8 | mm. 580 | au niveau de la table |
| Table dimensions | in. 11 3/8 x 15 3/4 | mm. 290 x 400 | Distance max. entre contre-
seau et table |
| Height of table over floor | in. 38 1/8 | mm. 975 | Dimensions de la table |
| Motor power | H.P. 4.1 | kW. 3 | Hauteur de la table au-
dessus du sol |
| Approx. net weight of press | lb. 2540 | kg. 1200 | Puissance du moteur |
| Approx. shipping volume | cu.ft. 39 | m ³ 1.1 | Poids net approx. de la
presse |
| | | | Vol. approx. d'expédition |

TYPE PHW - 25

| | British | Metric | |
|-------------------------------------|-----------------|------------------|--|
| Max. pressure | lb. 55000 | kg. 25000 | Pression max. |
| Max. return pressure | lb. 36400 | kg. 16500 | Pression max. de retour |
| Stroke | in. 0-19 3/4 | mm. 0-500 | Course |
| Throat at table level | in. 12 3/4 | mm. 330 | Profondeur du col de cygne |
| Max. distance between ram and table | in. 25 5/8 | mm. 650 | au niveau de la table |
| Table dimensions | in. 19 3/4 x 22 | mm. 500 x 560 | Distance max. entre contre-
seau et table |
| Height of table over floor | in. 35 1/2 | mm. 900 | Dimensions de la table |
| Motor power | H.P. 10 | kW. 7.5 | Hauteur de la table au-
dessus du sol |
| Approx. weight of press | lb. 7500 | kg. 3400 | Puissance du moteur |
| Approx. shipping volume | cu.ft. 108 | m ³ 3 | Poids approx. de la presse |
| | | | Vol. approx. d'expédition |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



HORIZONTAL PRESS

TYPE PB - 200

PRESSE HORIZONTALE

| | | | |
|------------------------------|-------------------|-------------------|-----------------------------|
| Max. pressure | lb. 44000 | kg. 20000 | Pression max. |
| Stroke | in. 1 | mm. 25 | Course |
| Number of strokes per minute | 50 | | Nombre de coups à la minute |
| Press straightness | in. 11 7/8-17 1/4 | mm. 300-430 | Distance entre supports |
| Distance between brackets | | | Capacité de dressage : |
| standard T-iron | all dimensions | toutes dimensions | for on T standard |
| double T-iron | N° 34 | | for on double T |
| U-iron | N° 34 | | for on U |
| Power required | H.P. 12 | KW. 11 | Puissance nécessaire |
| Approx. weight of press | lb. 10500 | kg. 4800 | Poids approx. de la presse |
| Approx. shipping volume | cu.ft. 282 | m³ 8 | Vol. approx. d'expédition |

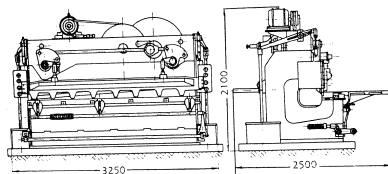
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SHEARING MACHINES
MACHINES A CISAILLER

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METALINDUSTRIES
ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



**GUILLOTINE
SHEARS**

TYPE NG - 4

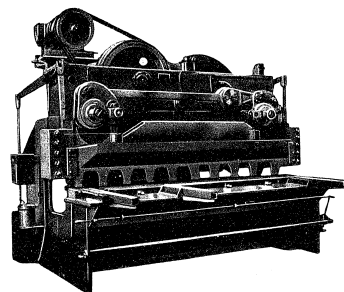
**CISAILLE
GUILLOTINE**

| | British | | Metric | |
|-----------------------------------|-------------|----|----------|------------------------------------|
| Length of cut per blade stroke | in. 92 1/2 | | mm. 2350 | Longueur de coupe par coup de lame |
| Length of blade | in. 104 3/8 | | mm. 2650 | Longueur de lame |
| Distance between side frames | in. 102 3/8 | | mm. 2600 | Distance entre longerons |
| Max. thickness of sheet to be cut | in. 3/16 | | mm. 4 | Epaisseur max. de la tôle |
| Number of strokes per minute | | 32 | | Nombre de coups par minute |
| Motor power | H.P. 7.5 | | kW. 5.5 | Puissance du moteur |
| Approx. weight of shears | lb. 6800 | | kg. 4000 | Poids approx. de la cisaille |

TYPE NG - 10

| | British | | Metric | |
|-----------------------------------|------------|----|----------|------------------------------------|
| Length of cut per blade stroke | in. 80 3/4 | | mm. 2050 | Longueur de coupe par coup de lame |
| Length of blade | in. 88 5/8 | | mm. 2250 | Longueur de lame |
| Distance between side frames | in. 86 5/8 | | mm. 2200 | Distance entre longerons |
| Max. thickness of sheet to be cut | in. 3/8 | | mm. 10 | Epaisseur max. de la tôle |
| Number of strokes per minute | | 18 | | Nombre de coups à la minute |
| Motor power | H.P. 12.3 | | kW. 9 | Puissance du moteur |
| Approx. weight of shears | lb. 15600 | | kg. 7000 | Poids approx. de la cisaille |

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**GUILLOTINE
SHEARS**

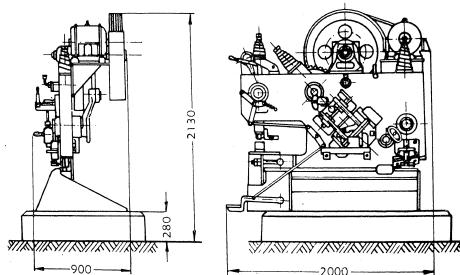
TYPE NG - 13

**CISAILLE
GUILLOTINE**

| | British | | Metric | |
|--------------------------------|-------------|----|-----------|---------------------------------------|
| Length of cut per blade stroke | in. 121 1/4 | | mm. 3080 | Longueur de coupe par coup de la lame |
| Length of blade | in. 128 | | mm. 3280 | Longueur de lame |
| Distance between side frames | in. 126 | | mm. 3200 | Distance entre longerons |
| Width of blade | in. 1 1/2 | 12 | mm. 13 | Largeur de lame |
| Number of strokes per minute | | | | Nombre de coups par minute |
| Motor power | H.P. 30 | | kW. 22 | Puissance du moteur |
| Approx. weight of shears | lb. 24100 | | kg. 10900 | Poids approx. de la cisaille |

TYPE NG - 32

| | British | | Metric | |
|--------------------------------|------------|---|-----------|---------------------------------------|
| Length of cut per blade stroke | in. 80 3/4 | | mm. 2050 | Longueur de coupe par coup de la lame |
| Length of blade | in. 88 5/8 | | mm. 2250 | Longueur de lame |
| Distance between side frames | in. 86 5/8 | | mm. 2200 | Distance entre longerons |
| Width of blade | in. 1 1/4 | 7 | mm. 32 | Largeur de lame |
| Number of strokes per minute | | | | Nombre de coups par minute |
| Motor power | H.P. 57 | | kW. 42 | Puissance du moteur |
| Approx. weight of shears | lb. 72800 | | kg. 33000 | Poids approx. de la cisaille |



STEEL PLATE SHEARING AND PUNCHING MACHINE

TYPE NU - 16

MACHINE A CISAILLER ET POINÇONNER LES TOLES D'ACIER

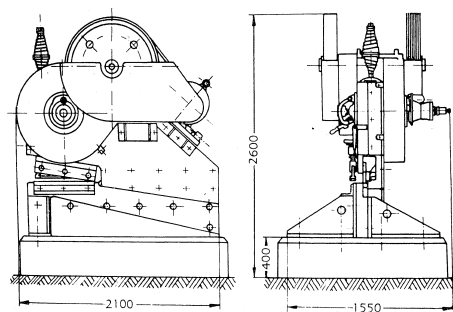
| | British | Metric | |
|--|------------------------|------------------|--|
| Capacity :
plates up to
round iron bars up to dia. | in. 9 1/8
in. 1 1/8 | mm. 14
mm. 38 | Capacité :
plaques jusqu'à
barres rondes jusqu'à
un dia. de |
| flat iron bars up to | in. 3 1/8 x 3/4 | mm. 80 x 20 | fers plats jusqu'à |
| Punching :
holes up to dia.
sheet thickness up to | in. 1 3/8
in. 5/8 | mm. 30
mm. 16 | Poinçonnage :
dia. max. de trous
épaisseur max. de tôle |
| Length of blade | in. 6 5/8 | mm. 230 | Longueur de lame |
| Number of strokes per
minute | | 13.3 | Nombre de coups à la mi-
nute |
| Motor power | H.P. 2.4 | kW. 4 | Puissance du moteur |
| Approx. weight of shears | lb. 5280 | kg. 2400 | Poids approx. de la cisaille |

TYPE NU - 25

| | British | Metric | |
|--|---------------------|------------------|--|
| Capacity :
plates up to
round iron bars up to dia. | in. 1
in. 2 9/16 | mm. 25
mm. 65 | Capacité :
plaques jusqu'à
barres rondes jusqu'à
un dia. de |
| flat iron bars up to | in. 8 1/4 x 1 1/8 | mm. 160 x 28 | fers plats jusqu'à |
| Punching :
holes up to dia.
sheet thickness up to | in. 1 3/8
in. 1 | mm. 35
mm. 25 | Poinçonnage :
dia. max. de trous
épaisseur max. de tôle |
| Length of blade | in. 13 3/4 | mm. 350 | Longueur de lame |
| Number of strokes per
minute | | 26 | Nombre de coups à la mi-
nute |
| Motor power | H.P. 10.8 | kW. 8 | Puissance du moteur |
| Approx. net weight | lb. 11450 | kg. 5200 | Poids net approx. |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



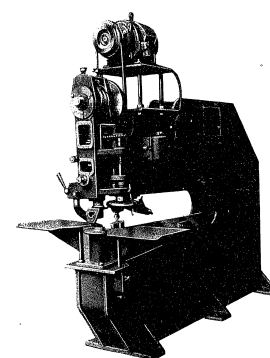
**SHEET
SHEARING
MACHINE**

TYPE NB - 20

**CISAILLE
A TOLES**

| | British | Metric | |
|------------------------------|----------------|--------------|------------------------------|
| Capacity : sheet up to | in. 13/16 | mm. 20 | Capacité : tôles jusqu'à |
| flat iron up to | in. 10 1/2 x 1 | mm. 420 x 25 | fers plats jusqu'à |
| stroke | in. 3 9/16 | mm. 80 | Coupe |
| Number of strokes per minute | 16 | | Nombre de coups à la minute |
| Motor power | H.P. 10 | KW. 7.5 | Puissance du moteur |
| Approx. weight of shears | lb. 3900 | Kg. 4500 | Poids approx. de la cisaille |

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**UNIVERSAL
SHEARING
MACHINE**

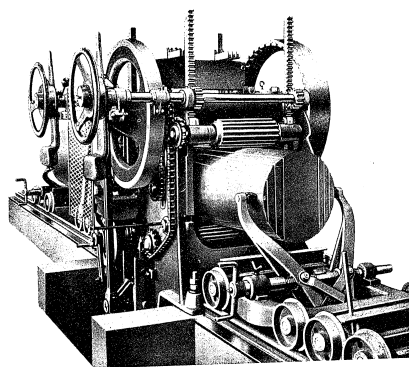
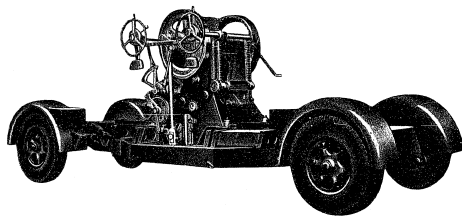
TYPE NW - 4

**CISAILLE
UNIVERSELLE**

| | British | Metric | |
|---|--------------|---------------------|---|
| Thickness of plate (tensile strength 45 kg./sq.mm.) : | | mm. 4 | Epaisseur de plaque (résistance en traction 45 kg/mm ²) : |
| outer cut | in. 3/16 | mm. 5 | coupe externe |
| inner cut | in. 1/8 | mm. 1000 | coupe interne |
| Depth of throat up to cutter center | in. 41 3/4 | | Profondeur de gorge jusqu'au centre du disque du coupe |
| Number of strokes per minute | 1200 and 850 | mm. 0.6 | Nombre de coups à la minute |
| Strokes | in. 0-1.4 | KW. 2 | Coupe |
| Motor power | H.P. 2.5 | Kg. 800 | Puissance du moteur |
| Approx. weight (without electric equipment) | lb. 1700 | m ³ 3.83 | Poids approx. (sans équi- perment électrique) |
| Approx. shipping volume | cu.ft. 115 | | Vol. approx. d'expédition |

WOOD-WORKING MACHINES

MACHINES A BOIS



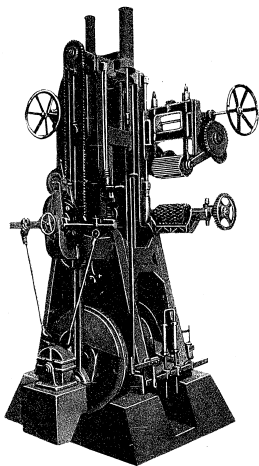
145

**MOVABLE HIGH
SPEED LOG
FRAME SAW
(TOP DRIVE)**

TYPE GKT - 60

**SCIE A GRUMES
PORTATIVE A
GRANDE VITESSE
(COMMANDE
PAR EN HAUT)**

| | British | Metric | |
|-------------------------------------|---------------------|---------------------|--------------------------------------|
| Max. frame span | in. 23 5/8 | mm. 600 | Largeur max. de châssis |
| Frame travel stroke | in. 15 3/4 | mm. 400 | Course du châssis |
| Max. number of saws | 12 | | Nombre max. de scies |
| Main shaft speed | r.p.m. 285-280 i.m. | mm/it. 0.12 | Vitesse de l'arbre principal |
| Feeds per one main shaft revolution | in./r. 0.7/16 | m"/r. 3.3-3 | Avance par tour de l'arbre principal |
| Output | cu.ft./h. 88-106 | kW. 32 | Capacité de production |
| Power required | H.P. 30 | kg. 4200 | Puissance nécessaire |
| Approx. net weight | lb. 8500 | kg. 6000 | Poids net approx. |
| Approx. gross weight | lb. 12800 | kg. 8000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 555 | m ³ 16.7 | Vol. approx. d'expédition |



HIGH EFFICIENCY LOG FRAME SAW (BOTTOM DRIVE)

TYPE TGP - 1

SCIE A GRUMES A GRAND RENDEMENT (COMMANDE PAR EN HAUT)

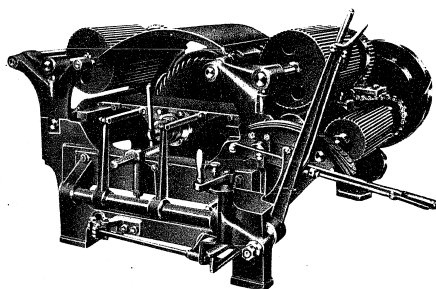
| | British | Metric | |
|------------------------------------|-----------------|-----------------------|--------------------------------------|
| Max. frame span | in. 23 5/8 | mm. 600 | Largueur max. de châssis |
| Frame travel stroke | in. 23 5/8 | mm. 600 | Course de châssis |
| Main shaft speed | r.p.m. 285-380 | r.p.m. 285-380 | Vitesse de l'arbre principal |
| Feed per one main shaft revolution | in./r. 1/8-1/2 | mm/r. 4-12 | Avance par tour de l'arbre principal |
| Output | cu.ft./hour 353 | m ³ /h. 10 | Capacité de production |
| Power required | H.P. 45 | kW. 33 | Puissance nécessaire |
| Approx. net weight | lb. 29700 | kg. 13500 | Poids net approx. |
| Approx. gross weight | lb. 35300 | kg. 16000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 990 | m ³ 28 | Vol. approx. d'expédition |

TYPE TGP - 2

| | British | Metric | |
|------------------------------------|-----------------|-----------------------|--------------------------------------|
| Max. frame span | in. 21 1/2 | mm. 500 | Largueur max. de châssis |
| Frame travel stroke | in. 23 5/8 | mm. 600 | Course de châssis |
| Main shaft speed | r.p.m. 285-380 | r.p.m. 285-380 | Vitesse de l'arbre principal |
| Feed per one main shaft revolution | in./r. 1/8-1/2 | mm/r. 4-12 | Avance par tour de l'arbre principal |
| Output | cu.ft./hour 353 | m ³ /h. 10 | Capacité de production |
| Power required | H.P. 33 | kW. 24 | Puissance nécessaire |
| Approx. net weight | lb. 30800 | kg. 14000 | Poids net approx. |
| Approx. gross weight | lb. 36400 | kg. 16500 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 1130 | m ³ 32 | Vol. approx. d'expédition |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX WARSZAWA



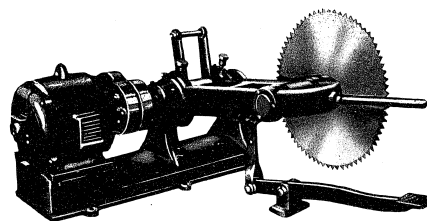
**DOUBLE SAW
EDGER**

TYPE PO

**SCIE DOUBLE
A DRESSER
LES BORDS**

| | British | Metric | |
|--------------------------|-----------------------------------|------------------|-----------------------------------|
| Max. width of cut timber | in. 27 5/8 | mm. 700 | Largeur max. du bois dé-
coupé |
| Cutting width | in. 2-13 3/4 | mm. 50-380 | Largeur de coupe |
| Max. cutting height | in. 57 7/8 | mm. 150 | Hauteur max. de coupe |
| Feeds | in./min. 3086 7/8
and 3228 3/4 | mm/min. 53 et 82 | Avances |
| Saw blade dia. | in. 35 5/8 | mm. 630 | Dia. de la lame de scie |
| Saw blade speed | | r.p.m. 1800 min. | Vitesse de la lame |
| Power required | H.P. 30 | kW. 22 | Puissance nécessaire |
| Approx. net weight | lb. 5850 | kg. 2700 | Poids net approx. |
| Approx. gross weight | lb. 7770 | kg. 3500 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 177 | m ³ 5 | Vol. approx. d'expédition |

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**PENDULUM CROSS
CUTTING
CIRCULAR SAW**

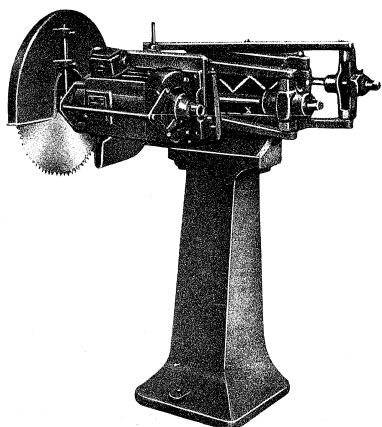
TYPE PDe-5

**SCIE CIRCULAIRE
DE TRAVERS
OSCILLATOIRE**

| | British | Metric | |
|-------------------------|------------|------------------|---------------------------|
| Saw blade dia. | in. 19 3/4 | mm. 500 | Dia. de la lame de scie |
| Saw blade speed | | r.p.m. 1500 min. | Vitesse de la lame |
| Max. cutting height | in. 77 7/8 | mm. 200 | Hauteur de coupe max. |
| Power required | H.P. 5.4 | kW. 4 | Puissance nécessaire |
| Approx. net weight | lb. 835 | kg. 380 | Poids net approx. |
| Approx. gross weight | lb. 1100 | kg. 500 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 35 | m ³ 1 | Vol. approx. d'expédition |

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ADDRESS WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



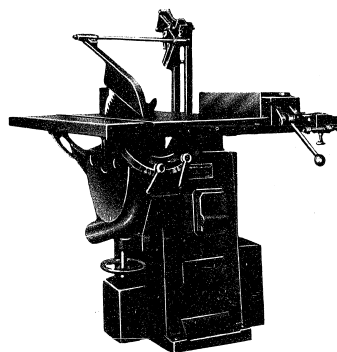
CROSS CUTTING
CIRCULAR SAW

TYPE PSWe

SCIE CIRCULAIRE
DE TRAVERS

| | British | Metric | |
|-------------------------|-------------|--------------------|----------------------------|
| Saw blade dia. | in. 19 3/4 | mm. 500 | Dia. de la lame de scie |
| Max. cutting length | in. 23 1/2 | mm. 750 | Longueur de coupe max. |
| Max. cutting depth | in. 4 3/4 | mm. 120 | Profondeur de coupe max. |
| Saw blade speed | r.p.m. 2800 | | Vitesse de la lame de scie |
| Approx. net weight | lb. 700 | kg. 265 | Poids net approx. |
| Approx. gross weight | lb. 1200 | kg. 500 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 57 | m ³ 1.6 | Vol. approx. d'expédition |

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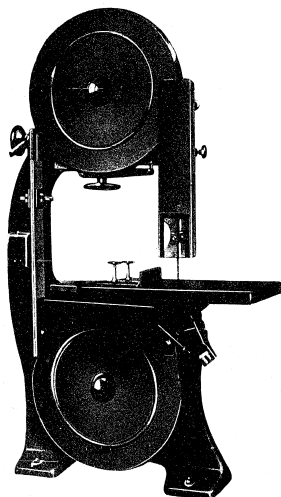


CIRCULAR BENCH
SAW WITH
MORTISING
ATTACHMENT

TYPE TPSe

SCIE CIRCULAIRE
AVEC DISPOSITIF
POUR MORTAISER

| | British | Metric | |
|----------------------|---------------------|--------------------|---------------------------|
| Saw blade dia. | in. 15 3/4 | mm. 400 | Dia. de la lame de scie |
| Saw blade speed | r.p.m. 2800 | | Vitesse de la lame |
| Table dimensions | in. 47 1/4 x 22 3/4 | mm. 1200 x 580 | Dimensions de la table |
| Inclination of table | in. 3 1/8 | mm. 120 | Inclinaison de la table |
| Max. cutting depth | in. 3 1/8 | mm. 80 | Profondeur max. de coupe |
| Max. cutting force | H.P. 4.1 | kg. 750 | Puissance nécessaire |
| Power required | lb. 1050 | kg. 1000 | Poids net approx. |
| Approx. net weight | lb. 2000 | kg. 900 | Poids brut approx. |
| Approx. gross weight | cu.ft. 134 | m ³ 3.5 | Vol. approx. d'expédition |



BAND SAWING MACHINE

TYPE PTe-7

SCIE A RUBAN

| | British | Metric | |
|--------------------------------|---------------------|-------------|------------------------------|
| Saw wheel dia. | in. 27 5/8 | mm. 700 | Dia. du volant porte-scie |
| Table dimensions | in. 29 1/2 x 29 1/2 | mm. 750/750 | Dimensions de table |
| Max. cutting height | in. 17 3/4 | mm. 450 | Hauteur max. de coupe |
| Distance between saw and frame | in. 27 5/8 | mm. 700 | Distance entre scie et bâti |
| Saw wheel speed | r.p.m. 710 | m/sec. 36 | Vitesse du volant porte-scie |
| Saw band speed | in./sec. 1023 3/4 | mm./sec. 26 | Vitesse du ruban-scie |
| Power required | H.P. 4.1 | kW. 3 | Puissance nécessaire |
| Approx. net weight | lb. 1400 | kg. 660 | Poids net approx. |
| Approx. gross weight | lb. 2200 | kg. 1000 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 99 | m³ 2.8 | Vol. approx. d'expédition |

TYPE PTe-9

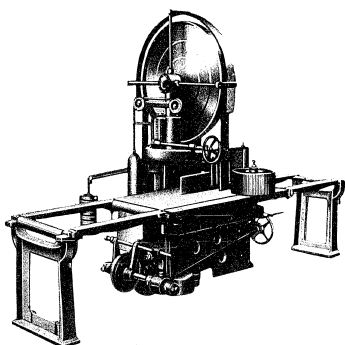
| | British | Metric | |
|--------------------------------|---------------------|---------------|------------------------------|
| Saw wheel dia. | in. 32 1/2 | mm. 800 | Dia. du volant porte-scie |
| Table dimensions | in. 32 3/8 x 35 1/2 | mm. 820 x 890 | Dimensions de table |
| Max. cutting height | in. 21 5/8 | mm. 550 | Hauteur max. de coupe |
| Distance between saw and frame | in. 32 1/2 | mm. 800 | Distance entre scie et bâti |
| Saw wheel speed | r.p.m. 500 | m/sec. 24 | Vitesse du volant porte-scie |
| Saw band speed | in./sec. 345 | mm./sec. 18 | Vitesse du ruban-scie |
| Power required | H.P. 6.8 | kW. 5 | Puissance nécessaire |
| Approx. net weight | lb. 1780 | kg. 800 | Poids net approx. |
| Approx. gross weight | lb. 2840 | kg. 1200 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 154 | m³ 4.3 | Vol. approx. d'expédition |

TYPE PTMe

| | British | Metric | |
|--------------------------------|---------------------|---------------|------------------------------|
| Saw wheel dia. | in. 13 3/4 | mm. 350 | Dia. du volant porte-scie |
| Table dimensions | in. 15 3/4 x 16 1/2 | mm. 400 x 420 | Dimensions de table |
| Max. cutting height | in. 7 1/8 | mm. 180 | Hauteur max. de coupe |
| Distance between saw and frame | in. 12 5/8 | mm. 320 | Distance entre scie et bâti |
| Saw wheel speed | r.p.m. 900 | m/sec. 18 | Vitesse du volant porte-scie |
| Saw band speed | in./min. 708 5/8 | mm./min. 18 | Vitesse du ruban-scie |
| Power required | H.P. 0.68 | kW. 0.5 | Puissance nécessaire |
| Approx. net weight | lb. 220 | kg. 100 | Poids net approx. |
| Approx. gross weight | lb. 374 | kg. 170 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 53 | m³ 1.5 | Vol. approx. d'expédition |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



**BAND RESAW
MACHINE**

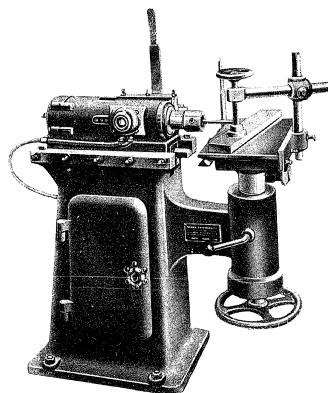
TYPE BVTc

SCIE A RUBAN

| | British | Metric |
|-------------------------|------------------|---------------------|
| Saw wheel dia. | in. 43 1/4 | mm. 1100 |
| Width of saw band | in. 4 | mm. 100 |
| Length of saw band | in. 230 1/4 | mm. 5800 |
| Max. cutting depth | in. 19 3/4 | mm. 500 |
| Saw wheel speed | r.p.m. 600 1/1m. | |
| Timber feed | in/min. 0-1875 | mm/min. 0-40 |
| Power required | H.P. 30 | k.W. 22 |
| Approx. net weight | lb. 8800 | kg. 4000 |
| Approx. gross weight | lb. 11000 | kg. 5000 |
| Approx. shipping volume | cu. ft. 380 | m ³ 10.8 |

| | |
|-----------------------------|---------------------|
| Dia. du volant porte-axe | mm. 1100 |
| Largeur du ruban-axe | mm. 100 |
| Longueur du ruban-axe | mm. 5800 |
| Hauteur de coupe max. | mm. 500 |
| Vitesse du volant porte-axe | r.p.m. 600 1/1m. |
| Vitesse du bois | mm/min. 0-40 |
| Puissance nécessaire | k.W. 22 |
| Poids net approx. | kg. 4000 |
| Poids brut approx. | kg. 5000 |
| Vol. approx. d'expédition | m ³ 10.8 |

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**HORIZONTAL
BORING AND
MORTISING
MACHINE**

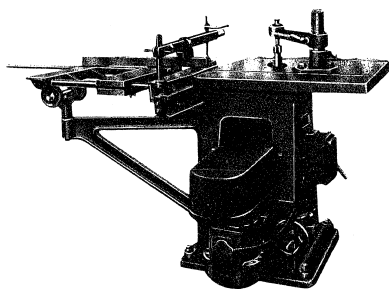
TYPE LBSa

**MACHINE
HORIZONTALE
A ALÉSER ET
MORTAISER**

| | British | Metric |
|-------------------------|-------------------|---------------------|
| Max. boring dia. | in. 1 3/8 | mm. 35 |
| Max. boring depth | in. 3 7/8 | mm. 100 |
| Max. length of slot | in. 7 7/8 | mm. 200 |
| Spindle speed | r.p.m. 2800 1/1m. | |
| Power required | H.P. 2.5 | k.W. 1.85 |
| Approx. net weight | lb. 680 | kg. 300 |
| Approx. gross weight | lb. 805 | kg. 480 |
| Approx. shipping volume | cu. ft. 22 | m ³ 1.47 |

| | |
|---------------------------|---------------------|
| Dia. max. d'alésage | mm. 35 |
| Profondeur max. d'alésage | mm. 100 |
| Longueur max. de mortaise | mm. 200 |
| Vitesse de broche | r.p.m. 2800 1/1m. |
| Puissance nécessaire | k.W. 1.85 |
| Poids net approx. | kg. 300 |
| Poids brut approx. | kg. 480 |
| Vol. approx. d'expédition | m ³ 1.47 |

156



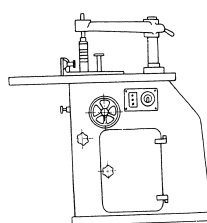
**MOULDING
MACHINE
WITH TENONING
AND MORTISING
ATTACHMENT**

TYPE FJe

**MACHINE
A MOULURER
AVEC DISPOSITIF
POUR TENONS
ET MORTAISES**

| | British | Metric | |
|---------------------------|----------------------|---------------|--|
| Max. depth of mortise cut | in. 6 3/8 | mm. 160 | Profondeur max. de mor-
taise à 3000 r.p.m. |
| Main table dimensions | in. 35 1/2 x 30 3/8 | mm. 900 x 760 | Dimensions de la table
principale |
| Spindle speeds | r.p.m. 3000 and 6000 | mm. 100 | Vitesse de broche |
| Vertical spindle travel | in. 4 | mm. 100 | Coureur verticale de la
broche |
| Power required | H.P. 4.1 | KW. 3 | Puissance nécessaire |
| Approx. net weight | lb. 1420 | kg. 650 | Poids net approx. |
| Approx. gross weight | lb. 1980 | kg. 900 | Poids brut approx. |
| Approx. shipping volume | cu. ft. 82 | m³ 2.3 | Vol. approx. d'expédition |

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**MOULDING
MACHINE
WITH TENONING
AND MORTISING
ATTACHMENT**

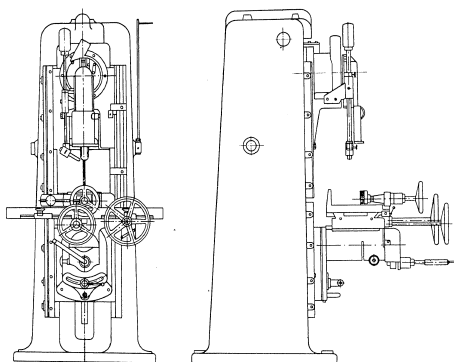
TYPE FJNe

**MACHINE
A MOULURER
AVEC DISPOSITIF
POUR TENONS
ET MORTAISES**

| | British | Metric | |
|---------------------------|----------------------|-----------------|--|
| Max. depth of mortise cut | in. 3 15/16 | mm. 100 | Profondeur max. de mor-
taise à 3000 r.p.m. |
| Max. depth of mortise cut | in. 1 13/16 | mm. 40 | Profondeur max. de mor-
taise à 6000 r.p.m. |
| Main table dimensions | in. 39 3/8 x 39 3/8 | mm. 1000 x 1000 | Dimensions de la table
principale |
| Spindle speeds | r.p.m. 3000 and 6000 | mm. 140 | Vitesse de broche |
| Vertical spindle travel | in. 8 1/2 | mm. 140 | Coureur verticale de la
broche |
| Power required | H.P. 3.5/4 | KW. 2.55/3.02 | Puissance nécessaire |
| Approx. net weight | lb. 1270 | kg. 580 | Poids net approx. |
| Approx. gross weight | lb. 1780 | kg. 800 | Poids brut approx. |
| Approx. shipping volume | cu. ft. 112 | m³ 3 | Vol. approx. d'expédition |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA

CHAIN
MORTISER

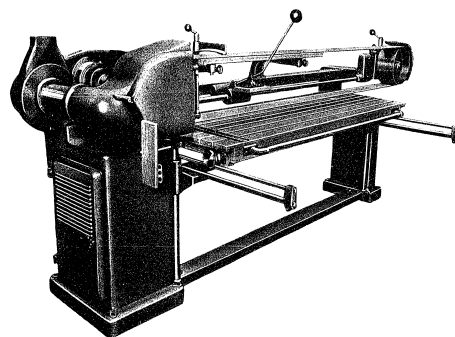
TYPE NKVR

MORTAISEUSE
A CHAINE

| | British | Metric |
|---|--------------------------------------|-------------------------------|
| Machine table :
min. width x length
max. width x length | in. 14 x 30 1/8
in. 1 x 11 7/8 | mm. 350 x 300
mm. 25 x 300 |
| Max. depth | in. 5 7/8 | mm. 150 |
| Max. thickness of machine
and workpiece | in. 12 3/4 | mm. 320 |
| Table dimensions | in. 10 9/16 x 32 1/4 | mm. 270 x 820 |
| Table travel :
longitudinal
cross
vertical | in. 11 7/8
in. 4 7/8
in. 7 7/8 | mm. 300
mm. 125
mm. 200 |
| Spindle speed | | r.p.m. 2880 c/m. |
| Power required | H.P. 3 | kW. 2.2 |
| Approx. net weight | lb. 1870 | kg. 850 |
| Approx. gross weight | lb. 2840 | kg. 1300 |
| Approx. shipping volume | cu. ft. 102 | m ³ 2.9 |

Trou de mortaise :
largeur et longueur min.
largeur et longueur max.
Profondeur max.
Epaisseur max. de la pièce
travaillée
Dimensions de table
Course de la table :
longitudinale
transversale
verticale
Vitesse de broche
Puissance nécessaire
Poids net approx.
Poids brut approx.
Vol. approx. d'expédition

159

SAND BELT
GRINDER

TYPE SLNE

PONCEUSE
A BANDE

| | British | Metric |
|--------------------------|---------------------|--------------------|
| Table dimensions | in. 66 5/8 x 31 1/2 | mm. 2330 x 800 |
| Table cross travel | in. 31 1/8 | mm. 800 |
| Max. height of workpiece | in. 22 | mm. 560 |
| Sand belt speed | ft. sec. 925 f. s. | m. sec. 33.3 |
| Grinding wheel speed | r.p.m. 1440 c/m. | mm. 6700 x 1600 |
| Sand belt length x width | in. 263 3/4 x 59 | mm. 6700 x 1500 |
| Grinding wheel dia. | in. 12 1/4 | mm. 310 |
| Power required | H.P. 3 | kW. 2.2 |
| Approx. net weight | lb. 2420 | kg. 1100 |
| Approx. gross weight | lb. 3530 | kg. 1600 |
| Approx. shipping volume | cu. ft. 240 | m ³ 6.8 |

Dimensions de table
Course transversale de la
table
Hauteur max. de pièce
Vitesse de la bande
Vitesse du disque ponceur
Longueur largeur de la
bande
Puissance nécessaire
Poids net approx.
Poids brut approx.
Vol. approx. d'expédition

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ADDRESS: WARSZAWA, P. O. BOX 442
CABLES: METALEX WARSZAWA

SURFACE PLANING MACHINE

TYPE ALNe

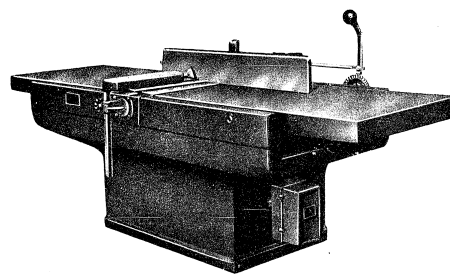
MACHINE A RABOTER

| | British | Metric | |
|----------------------------------|-----------------------|------------------|-------------------------------------|
| Planing width | in. 11 3/4 and 15 3/4 | mm. 300 et 400 | Largueur de rabotage |
| Cut depth | in. 0-3/16 | mm. 0-5 | Profondeur de coupe |
| Table length | in. 79 3/4 | mm. 2000 | Longueur de table |
| Number of knives in cutter block | 4 | | Nombre de lames dans le porte-outil |
| Cutter-block speed | r.p.m. 4500 | | Vitesse du porte-outil |
| Power required | H.P. 3 | kW. 2.21 | Puissance nécessaire |
| Approx. net weight | lb. 1760 | kg. 800 | Poids net approx. |
| Approx. gross weight | lb. 2070 | kg. 1350 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 140 | m ³ 4 | Vol. approx. d'expédition |

TYPE AONe - 6

| | British | Metric | |
|----------------------------------|-------------|--------------------|-------------------------------------|
| Planing width | in. 83 5/8 | mm. 600 | Largueur de rabotage |
| Cut depth | in. 0-3/16 | mm. 0-5 | Profondeur de coupe |
| Table length | in. 90 1/2 | mm. 2300 | Longueur de table |
| Number of knives in cutter block | 4 | | Nombre de lames dans le porte-outil |
| Cutter-block speed | r.p.m. 4500 | | Vitesse du porte-outil |
| Power required | H.P. 5.7 | kW. 4.2 | Puissance nécessaire |
| Approx. net weight | lb. 3000 | kg. 1000 | Poids net approx. |
| Approx. gross weight | lb. 3190 | kg. 1450 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 155 | m ³ 4.5 | Vol. approx. d'expédition |

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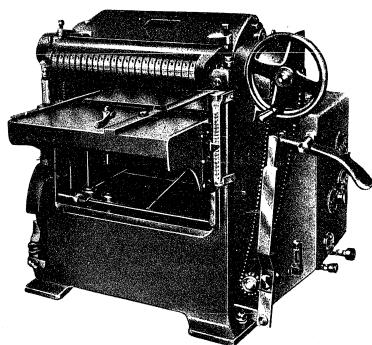
SURFACE PLANING MACHINE

TYPE AONe - 7

MACHINE A RABOTER

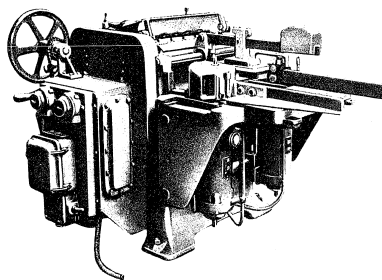
| | British | Metric | |
|----------------------------------|-------------|--------------------|-------------------------------------|
| Planing width | in. 27 5/8 | mm. 700 | Largueur de rabotage |
| Cut depth | in. 0-3/16 | mm. 0-5 | Profondeur de coupe |
| Table length | in. 90 1/2 | mm. 2300 | Longueur de table |
| Number of knives in cutter block | 4 | | Nombre de lames dans le porte-outil |
| Cutter-block speed | r.p.m. 4500 | | Vitesse du porte-outil |
| Power required | H.P. 5.7 | kW. 4.2 | Puissance nécessaire |
| Approx. net weight | lb. 2640 | kg. 1200 | Poids net approx. |
| Approx. gross weight | lb. 3050 | kg. 1600 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 194 | m ³ 5.5 | Vol. approx. d'expédition |

162

ADDRESS : WARSZAWA P. O. BOX 442
CABLES : METALEX - WARSZAWA**THICKNESSING
MACHINE****TYPE HeNe - 6****MACHINE
A TIRER
D'ÉPAISSEUR**

| | British | Metric | |
|----------------------------------|--------------------------|--------------------|-------------------------------------|
| Planing width | in. 23 3/8 | mm. 600 | Largeur de rabotage |
| Max. workpiece thickness | in. 7 7/8 | mm. 200 | Épaisseur max. de pièce usinée |
| Number of knives in cutter block | 4 | | Nombre de lames dans le porte-outil |
| Cutter-block speed | r.p.m. 4500 r.m. | | Vitesse du porte-outil |
| Feeds | in./rev. 354 3/8 and 5/8 | mm/min. 9 et 13 | Avances |
| Power required | H.P. 6.5 | kW. 5.5 | Puissance nécessaire |
| Approx. net weight | lb. 1260 | kg. 885 | Poids net approx. |
| Approx. gross weight | lb. 1500 | kg. 1100 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 90 | m ³ 2.7 | Vol. approx. d'expédition |

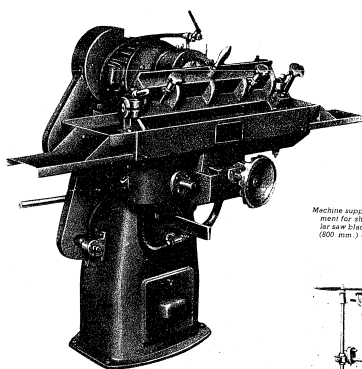
163

**THREE-SIDE
THICKNESSING
AND PLANING
MACHINE****TYPE HTe - 5****MACHINE A TIRER
D'ÉPAISSEUR
ET RABOTER
SUR LES
TROIS FACES**

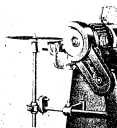
| | British | Metric | |
|-------------------------------|------------------------------|---------------------|-----------------------------------|
| Max. planing width | in. 19 3/4 | mm. 500 | Largeur max. de rabotage |
| Min. planing width | in. 3 1/8 | mm. 80 | Largeur min. de rabotage |
| Feeds | in./rev. 169 1/4 and 172 3/8 | mm/min. 4.5 et 7 | Avances |
| Max. workpiece thickness | in. 7 7/8 | mm. 200 | Épaisseur max. de pièce usinée |
| Horizontal cutter-block speed | r.p.m. 4200 r.m. | | Vitesse de porte-outil horizontal |
| Vertical cutter-block speed | r.p.m. 3000 r.m. | | Vitesse de porte-outil vertical |
| Power required | H.P. 15 | kW. 8.83 | Puissance nécessaire |
| Approx. net weight | lb. 2420 | kg. 1100 | Poids net approx. |
| Approx. gross weight | lb. 3000 | kg. 1400 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 108 | m ³ 1.08 | Vol. approx. d'expédition |

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ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA



Machine supplied with attach-
ment for sharpening circular
saw blades up to 31 1/2"
(800 mm.) dia.



Machine fournie avec dispo-
sitif pour affûtage de lames
de scies circulaires jusqu'à
800 mm. de dia.

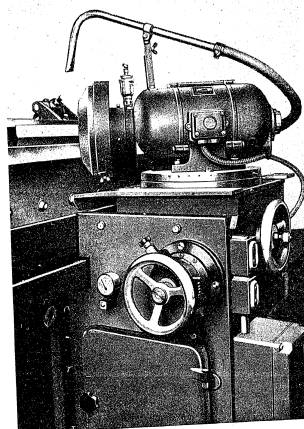
**AUTOMATIC
PLANER KNIVES
SHARPENING
MACHINE**

TYPE OLNe-7

**MACHINE
AUTOMATIQUE
A AFFUTER
LES LAMES
DE RABOTEUSE**

| | British | Metric | |
|-------------------------|------------|----------|---------------------------|
| Grinding wheel dia. | in. 43 3/8 | mm. 1100 | Dia. de meule |
| Sharpening length | in. 27 5/8 | mm. 700 | Longueur d'affûtage |
| Power required | H.P. 1.8 | kW. 1.3 | Puissance nécessaire |
| Approx. net weight | lb. 840 | kg. 380 | Poids net approx. |
| Approx. gross weight | lb. 1400 | kg. 635 | Poids brut approx. |
| Approx. shipping volume | cu. ft. 67 | 1.9 m³ | Vol. approx. d'expédition |

165



**HYDRAULIC
PLANER KNIVES
SHARPENING
MACHINE**

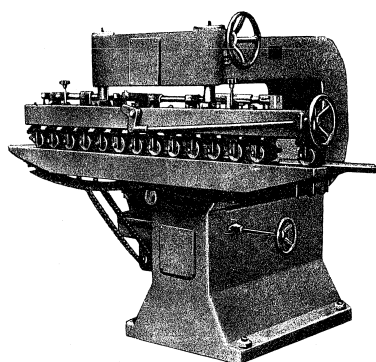
TYPE OTH

**AFFUTEUSE
HYDRAULIQUE
POUR LAMES
DE RABOTEUSE**

| | British | Metric | |
|-------------------------|------------------|----------------|---------------------------|
| Sharpening length | in. 29 3/8 | mm. 1000 | Longueur d'affûtage |
| Table traverse speed | in. min. 324 3/4 | mm. min. 10-18 | Vitesse de table |
| Power required | H.P. 5 | kW. 3.7 | Puissance nécessaire |
| Approx. net weight | lb. 4400 | kg. 2000 | Poids net approx. |
| Approx. gross weight | lb. 5880 | kg. 2700 | Poids brut approx. |
| Approx. shipping volume | cu. ft. 64 | m³ 1.8 | Vol. approx. d'expédition |

166

ADDRESS : WARSZAWA, P. O. BOX 412
CABLES : METALEX - WARSZAWA



**VENEER
GLUEING
MACHINE**

TYPE SNSe

**ENCOLLEUSE
POUR BOIS
EN FEUILLES**

| | British | Metric | |
|-------------------------|----------------------------|------------------|---------------------------|
| Feeds | in./min. 127 1/2 - 472 1/2 | mm/min. 4-12 | Avances |
| Power required | H.P. 1.5 | kW. 1.1 | Puissance nécessaire |
| Approx. net weight | lb. 3870 | kg. 1700 | Poids net approx. |
| Approx. gross weight | lb. 3700 | kg. 1700 | Poids brut approx. |
| Approx. shipping volume | cu.ft. 141 | m ³ 4 | Vol. approx. d'expédition |

B-12-a-f-5,500-6-46

M E T A L E X P O R T - W A R S Z A W A

NOTES

M E T A L E X P O R T - W A R S Z A W A
ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA

M E T A L E X P O R T - W A R S Z A W A

METALEXPORT - WARSZAWA
ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA

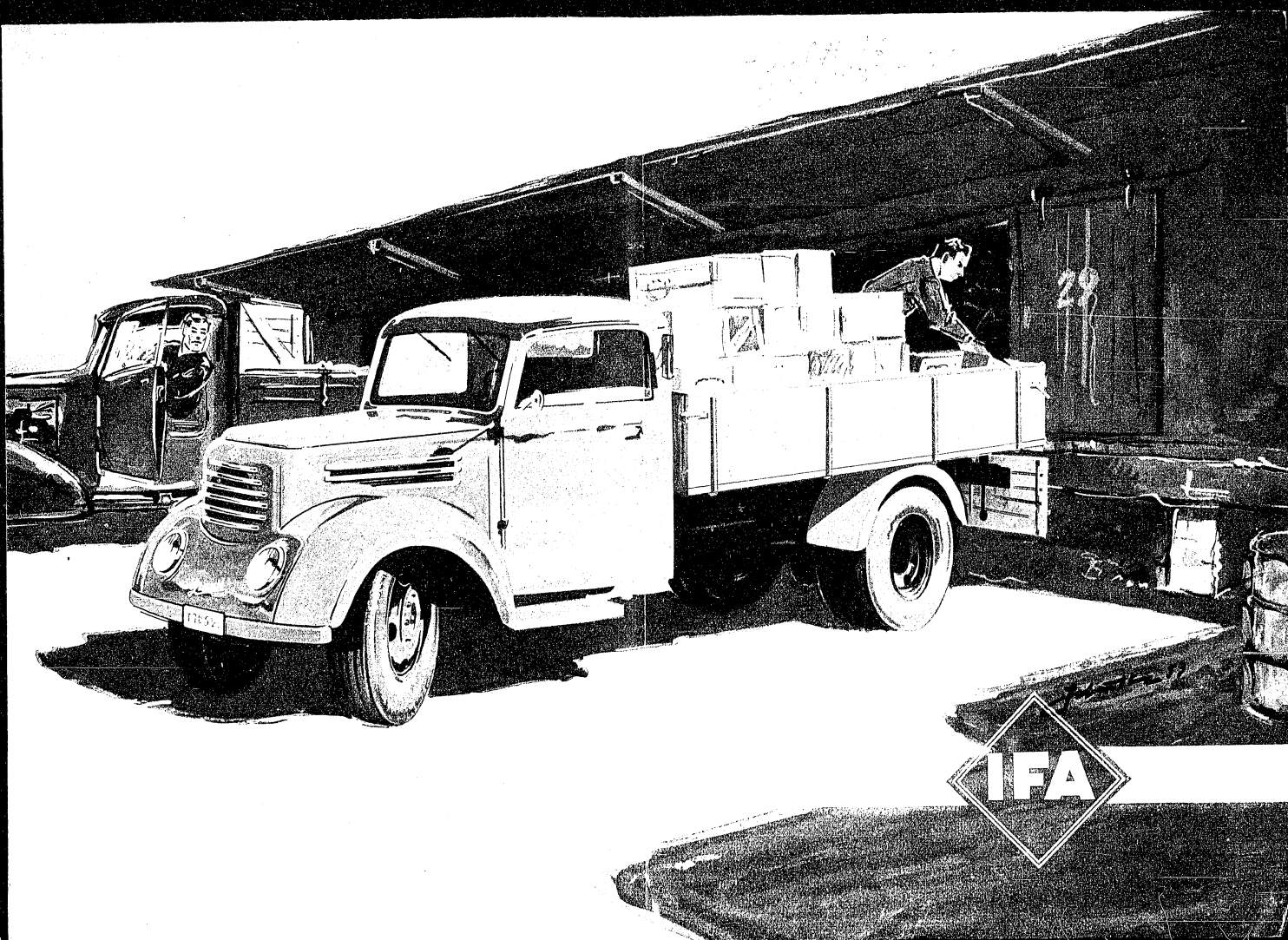
METALEXPORT - WARSZAWA

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METALEXPORT - WARSZAWA
ADDRESS : WARSZAWA, P. O. BOX 442
CABLES : METALEX - WARSZAWA

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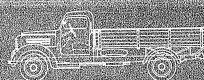
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VÉHICULES AUTOMOBILES PHÄNOMEN, TYPE „GRANIT“

Les longues expériences pratiques et le meilleur savoir technique ont, dans des travaux de développement intenses, créés des véhicules automobiles modernes, qui, par leur solidité et résistance correspondent aux plus larges nécessités de la vie économique. Au point de vue construction parfaite et meilleure solution de tous problèmes techniques, des véhicules sont produits, tenant compte des exigences des propriétaires de véhicules automobiles du monde entier. La sédentarité des ouvriers spécialistes garantit une qualité extraordinaire toujours égale tandis que la vogue de ces produits et les satisfactions qu'ils donnent, ont mobilisés les acheteurs dans plus de 20 pays et en ont fait des acheteurs permanents. Les moteurs refroidis à l'air et ainsi insensibles ont une force saine, le châssis est soigneusement adapté au grand domaine de travail et la carrosserie est d'une qualité supérieure.



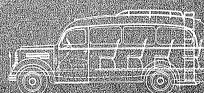
Camion plat, charge utile 1,5 tonne, normal, largeur 2,10 m, hauteur 2,10 m, poids total 2,50 t (2,50 t) en demande avec autre hauteur 2,50 t (2,50 t).



Camion van, charge utile 1,5 tonne, normal, largeur 2,10 m, hauteur 2,10 m, poids total 2,50 t (2,50 t) en demande avec autre hauteur 2,50 t (2,50 t).



Automobile van, charge utile 1,5 tonne, normal, largeur 2,10 m, hauteur 2,10 m, poids total 2,50 t (2,50 t) en demande avec autre hauteur 2,50 t (2,50 t).



Automobile van, charge utile 1,5 tonne, normal, largeur 2,10 m, hauteur 2,10 m, poids total 2,50 t (2,50 t) en demande avec autre hauteur 2,50 t (2,50 t).

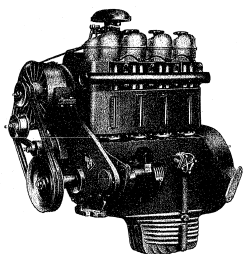
Les véhicules Phänomen sont les plus modernes et les plus économiques. Ils sont adaptés à tous les besoins de la vie économique. Ils sont produits en grande quantité et sont disponibles partout.

RAPIDE — ROBUSTE — ÉCONOMIQUE ET TOUJOURS PRÊTE

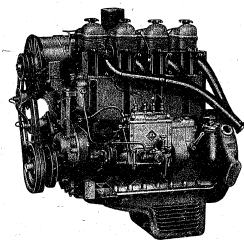
CHASSIS PHANOMEN. TYPE „GRANIT“ POUR TOUTES FINIS

MOTEURS REFROIDIS A L'AIR

Les moteurs à quatre cylindres, quatre temps commandés d'en haut, avec une soufflerie axiale moderne, du type „GRANT“, comme le résultat de longues expériences, offrent les avantages particuliers de simplicité et clarté de construction mécanique, de remplacement facile de cylindres et pistons, d'exploitation supérieure du carburant, d'une sécurité de service inébranlable, nécessité minime d'entretien et sont toujours prêts au service.

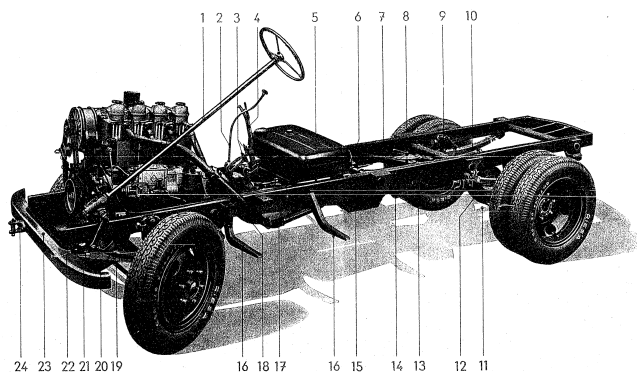


Moteur Otto, Type „Grant“ 30 K³ 55 CV, à 2800 l/min, alliage 90 mm, Ø, course 118 mm, cylindrée d'ensemble 3000 cm³, compression 1:5,5, lubrification à l'huile et pression combinée, soupapes 3 ports sur coudes, carburateur à chute, démarreur 12 volts (1 CV) et dynamo 12 volts (150 watts), consommation nominale de carburant 16 litres/100 km.

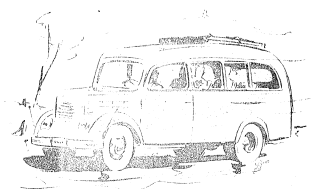


Moteur Diesel „Grant“ 32³ 52 CV, à 2000 l/min, alliage 100 mm, Ø, course 128 mm, cylindrée d'ensemble 3181 cm³, compression 1:18, lubrification à pression, soupapes quatre points sur coudes, pompe d'injection IFA, démarreur 24 volts (4 CV) et dynamo 12 volts (300 watts), consommation nominale de carburant 11,5 litres/100 km.

Aussi bien le moteur OTTO 55 CV, tout comme le moteur Diesel 52 CV, peuvent être livrés et sont interchangeables dans le chassis. Celui-ci se compose de deux longones non-coulées en profil U de et six traverses principales. Distance d'essieux 3270 ou 3770 mm. Entremise à disque unique, changement de vitesse à 4 marches avant et 1 marche arrière. La transmission aux roues arrière est dentée hélicoïdale à engrenage différentiel. Suspension longitudinale avant et arrière, ressort arrière à ressorts supplémentaires; dans les automobiles d'ambulance suspension spéciale à effet progressif. Frein hydraulique à pédale à pression d'huile, sur quatre roues, frein à main à effet mécanique sur roues arrière. Lubrification centrale par pression. Chauffage à air frais efficace pour cabine du chauffeur et pare-brise, pour autobus et ambulance pour l'intérieur également. Aux carrosseries de camions plats et à caisse et d'ambulance accouplement de dépannage et à celles de camions plats accouplement supplémentaire pour remorques. Contenu du réservoir de carburant: 72 litres, dont environ 8 litres de réserve par remorque à trois voies. 6 roues à disques démontables et 1 roue de réserve sur pneus 6,50-20 «H», aux voitures d'ambulance 4 roues à disques démontables et 1 roue de réserve sur pneus 7,00-20 «H». Installation électrique et démarreur de 12 volts lors d'équipement de moteur OTTO 55 CV, ou installation électrique de 12 volts et de démarrage de 24 volts lors d'équipement de moteur Diesel 52 CV. Vitesse maximum jusqu'à 80 km/heure.

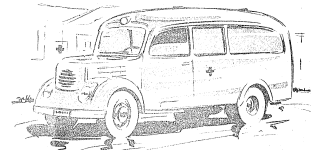
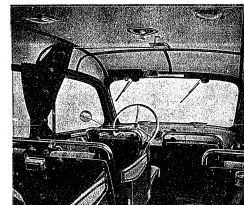


- | | | |
|--|--|------------------------------------|
| 1. Direction | 9. Amortisseur de choc à pression d'huile | 17. Tuyau d'échappement |
| 2. Levier de changement de vitesse | 10. Ressort longitudinal avec ressort supplémentaire | 18. Conduite d'air frais |
| 3. Pédales de débrayage et de frein | 11. Tuyau de frein | 19. Barre d'accouplement des roues |
| 4. Levier de frein à main | 12. Traction arrière | 20. Ressort longitudinal avant |
| 5. Réservoir de carburant | 13. Pot d'échappement silencieux | 21. Barre de direction |
| 6. Conduite de refoulement de carburant (Diesel) | 14. Longeron gauche | 22. Levier de direction |
| 7. Longeron droit du châssis | 15. Réchauffeur d'air frais | 23. Pare-chocs |
| 8. Support de roue de réserve (camion plat) | 16. Support de marche-pied | 24. Accouplement de dépannage |



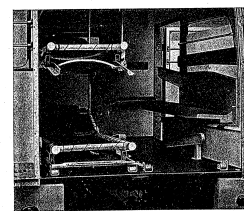
AUTOMOBILE DE TOURISME

18 sièges, chauffeur compris, dont trois sièges de secours rabattibles. Tous les sièges sont à haut dossier avec dossier. Possibilité de monter commande et éclairage. Siège du chauffeur séparé de l'espace des passagers par rideau de protection. Alésium par deux ventilateurs sur le toit avec quatre interrupteurs et deux ventouses à air au dessus du pare-brise.



AUTOHUILE D'AMBULANCE

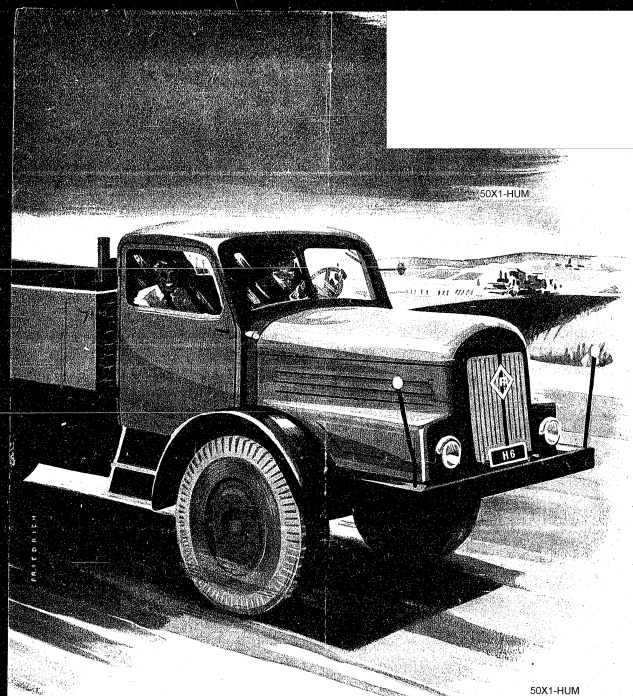
L'organe intérieur bien conçu et puissant des-chassis offre confortement pour le transport de jusqu'à quatre malades couchés sur brancards amovibles et de deux malades ou personnes d'accompagnement assis sur un fauteuil rembourré et un siège de secours installé au dos de la cabine du chauffeur. La banquette rabattable rembourrée, à trois places avec dossier, peut être employée lorsque les deux brancards gardiens sont occupés.



RAPIDE — ROBUSTE — ÉCONOMIQUE ET TOUJOURS PRÊTE

DONNEL'S TECHNIQUES

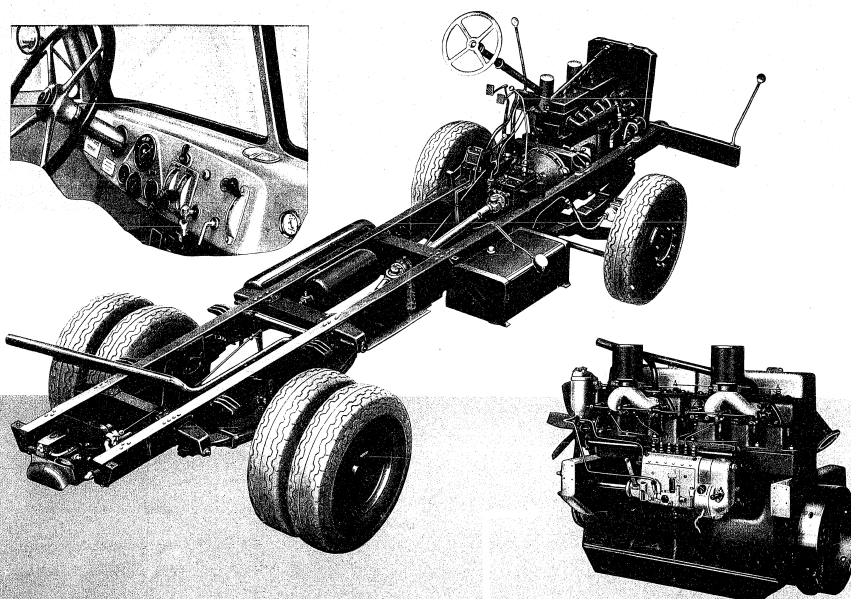
| | Dimensions | Weight | Performance | Capacity |
|---|----------------------|---------------|-------------|----------|
| CAMION PLAT | | | | |
| Dimensions (longueur x largeur x hauteur) | 1500 x 400 mm | 1000 kg (max) | | |
| Poids à vide | | | 2070 kg | 2200 kg |
| Poids chargé | | | 2170 kg | 2270 kg |
| Dimensions (longueur x largeur x hauteur) | 1700 x 1060 x 200 mm | 2200 kg (max) | | |
| Poids à vide | | | 2100 kg | 1880 kg |
| Poids chargé | | | 2100 kg | 1880 kg |
| Dimensions (longueur x largeur x hauteur) | 1500 x 1070 x 200 mm | 1800 kg (max) | | |
| Poids à vide | | | 1800 kg | 1800 kg |
| Poids chargé | | | 1800 kg | 1800 kg |
| CAMION 4 AXES | | | | |
| Dimensions (longueur x largeur x hauteur) | 1500 x 400 mm | | | |
| Poids à vide | | | 2200 kg | 2200 kg |
| Poids chargé | | | 2200 kg | 2200 kg |
| Dimensions (longueur x largeur x hauteur) | 1700 x 1060 x 200 mm | | | |
| Poids à vide | | | 2100 kg | 1880 kg |
| Poids chargé | | | 2100 kg | 1880 kg |
| Dimensions (longueur x largeur x hauteur) | 1500 x 1070 x 200 mm | | | |
| Poids à vide | | | 1800 kg | 1800 kg |
| Poids chargé | | | 1800 kg | 1800 kg |
| PLATEAU-BEINER (RAVITAILLAGE) | | | | |
| Dimensions (longueur x largeur x hauteur) | 1500 x 400 mm | | | |
| Poids à vide | | | 2200 kg | 2200 kg |
| Poids chargé | | | 2200 kg | 2200 kg |
| Dimensions (longueur x largeur x hauteur) | 1700 x 1060 x 200 mm | | | |
| Poids à vide | | | 2100 kg | 1880 kg |
| Poids chargé | | | 2100 kg | 1880 kg |
| Dimensions (longueur x largeur x hauteur) | 1500 x 1070 x 200 mm | | | |
| Poids à vide | | | 1800 kg | 1800 kg |
| Poids chargé | | | 1800 kg | 1800 kg |
| AUTOBUS 12-14 LIEUX | | | | |
| Dimensions (longueur x largeur x hauteur) | 1500 x 400 mm | | | |
| Poids à vide | | | 2200 kg | 2200 kg |
| Poids chargé | | | 2200 kg | 2200 kg |
| Dimensions (longueur x largeur x hauteur) | 1700 x 1060 x 200 mm | | | |
| Poids à vide | | | 2100 kg | 1880 kg |
| Poids chargé | | | 2100 kg | 1880 kg |
| Dimensions (longueur x largeur x hauteur) | 1500 x 1070 x 200 mm | | | |
| Poids à vide | | | 1800 kg | 1800 kg |
| Poids chargé | | | 1800 kg | 1800 kg |



VEB KRAFTFAHRZEUGWERK PHÄNOMEN · ZITTAU

IFA H6

Remis par:

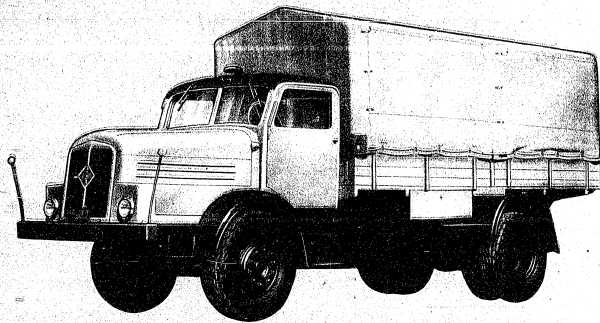


EFFICIENT - ECONOMICAL - DEPENDABLE

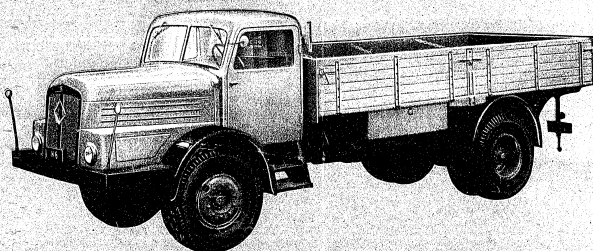
These three foremost requirements of commercial transportation were the guiding principles when designing the 6.5 tons IFA H 6 Truck. The experience gained in several decades of truck building as well as the latest technical and scientific knowledge in automotive engineering are incorporated in the design and construction. Foremost importance was attached to the ruggedness and robustness of all subassemblies and components to meet the requirements of fast, heavy-duty transportation service. - With regard to its driving qualities, low-cost operation and maintenance work, the IFA H 6 is positively in-line with standard conceptions of up-to-date truck engineering. Practice tested in local and long-distance transportation service, the H 6 has proved absolutely de-

pendable in mountainous territory with a 5 tons trailer payload. - With its pressed steel, fish-belly shaped longitudinal beams and rivetted-in cross members, the frame of the IFA H 6 is extremely torsion resistant. The straight upper face of the beams provide full facility for custom-built superstructures. Powerful laminated springs, carried on the beams over the rear axle, take up the thrust and braking forces. Helper springs act additionally when carrying a full payload. The four-wheel pneumatic brake system together with the proportionally well dimensioned brake drums provide for rapid and safe braking of the truck even under full load and at maximum

speed. The rear cross member has an automatic trailer coupling attachment with electric light cable and pneumatic brake connections. - The truck is powered by an efficient and very robust six-cylinder, 120 h. p. Diesel engine operating on the eddy chamber principle. Even in extreme low-temperature operation no starting difficulties will be incurred. The crankshaft is carried in seven bearings. The light-metal pistons run in water-circulated cylinder liners. The cleaning of the Diesel fuel, so vital for the life and trouble-free operation of the injection pump, as well as the provision of dust-free suction air, are effected by the use of heavy-duty, high-efficiency filters. A governor limits the maximum engine speed to 2,000 r. p. m. The engine is rubber-bedded. All assemblies and subassemblies are easily and completely accessible. - The five-speed transmission gear is carefully stepped to give adequate traction at all possible road conditions. The constant



mesh helical transmission gears are operated by dog clutches. The cardan shaft is subdivided by intermediate bearings. The rear wheels are driven over two rear axle shafts. - Maintenance work is appreciably simplified by the ready accessibility of all parts requiring care and attendance. Another feature making for convenient driving is the at-a-glance arrangement of the controls. The steering mechanism is notable for its smooth operation and greatly helps to eliminate driving fatigue. - By reason of its progressive design and the mechanical perfection of all component parts, the IFA H 6 is up to all requirements that may be rightfully demanded of a utility truck in its class.



TECHNICAL SPECIFICATION

| | | |
|------------------------------------|-------------------------------|---------------------------------|
| Front axle: | Brake drums-Ø: | Speeds and maximum traction |
| forged, fist type | front 400 mm. | on level roads: |
| | rear 440 mm. | 1st gear 7 km/hour 4150 kg. |
| Front axle springs: | Brake linings width: | 2nd gear 13 km/hour 2430 kg. |
| 2 semi-elliptic springs | front 120 mm. | 3rd gear 22 km/hour 1410 kg. |
| Spring bushings: | rear 160 mm. | 4th gear 39 km/hour 840 kg. |
| bolts and sliding pieces | | 5th gear 54 km/hour 580 kg. |
| Axle bearings: | Brake action: | Wheel base: |
| anti-friction | 4-wheel | 4,500 mm. |
| Rear axle drive: | Braking power transmission: | Track, front: |
| propeller shaft with intermediate | compressed air | 1,920 mm. |
| bearings | Parking brake: | Track, rear: |
| Rear axle body: | ratcheted type, hand operated | 1,820 mm. |
| cast-steel casing with | acting on rear wheels | Road clearance under rear axle: |
| drawn-in axle tubes | | 300 mm. |
| Rear axle shafts: | Trailer braking: | Length: |
| full floating axles | compressed air | 8,000 mm. |
| Rear springs: | Steering system: | Width: |
| 2 semi-elliptic springs | steering worm with roller- | 2,500 mm. |
| and helper springs | carried guide finger | Max. height with load, appr.: |
| Spring bushings and thrust: | Tie rod: | 3,000 mm. |
| 2 sheet-steel pressed, U-sectioned | behind front axle | Platform, clear space: |
| beams, fish belly shaped with | Storage battery: | 5,012 x 2,354 mm. |
| straight face | twice 12 volts, 180 A/h. | Sideboards, height: |
| Frame cross members: | Location of battery: | 600 mm. |
| 6, rivetted | under driver's seat | Permissible total weight: |
| Couplings: | Starting motor: | 13,150 kg. |
| front: 2 low couplings | 24 volts, 6 h. p. | Permissible front axle load: |
| rear: 1 automatic trailer | Electric generator: | 4,550 kg. |
| coupling for 16.5 tons traction | 12 volts, 300 watt | Permissible rear axle load: |
| Wheels: | Fuel tank capacity: | 9,000 kg. |
| steel disk wheels 9—10" VS—20 | 150 litres | Payload: 6,500 kg. |
| Tire dimensions: | Location of fuel tank: | Rated fuel consumption: |
| 12.00—20 extra | at right frame beam | 28.05 litres per 100 km. |
| Tire arrangement: | Fuel feeding: | at 36 km. per hour |
| single in front, twin in rear | plunger pump | |
| Brakes: | Fuel filter: | We reserve the right to make |
| internal shoe brakes | felt filter | modifications |

Presented by:

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